CALIFORNIA

OIL WORLD

TWICE MONTHLY • FIRST ISSUE • JULY 1949

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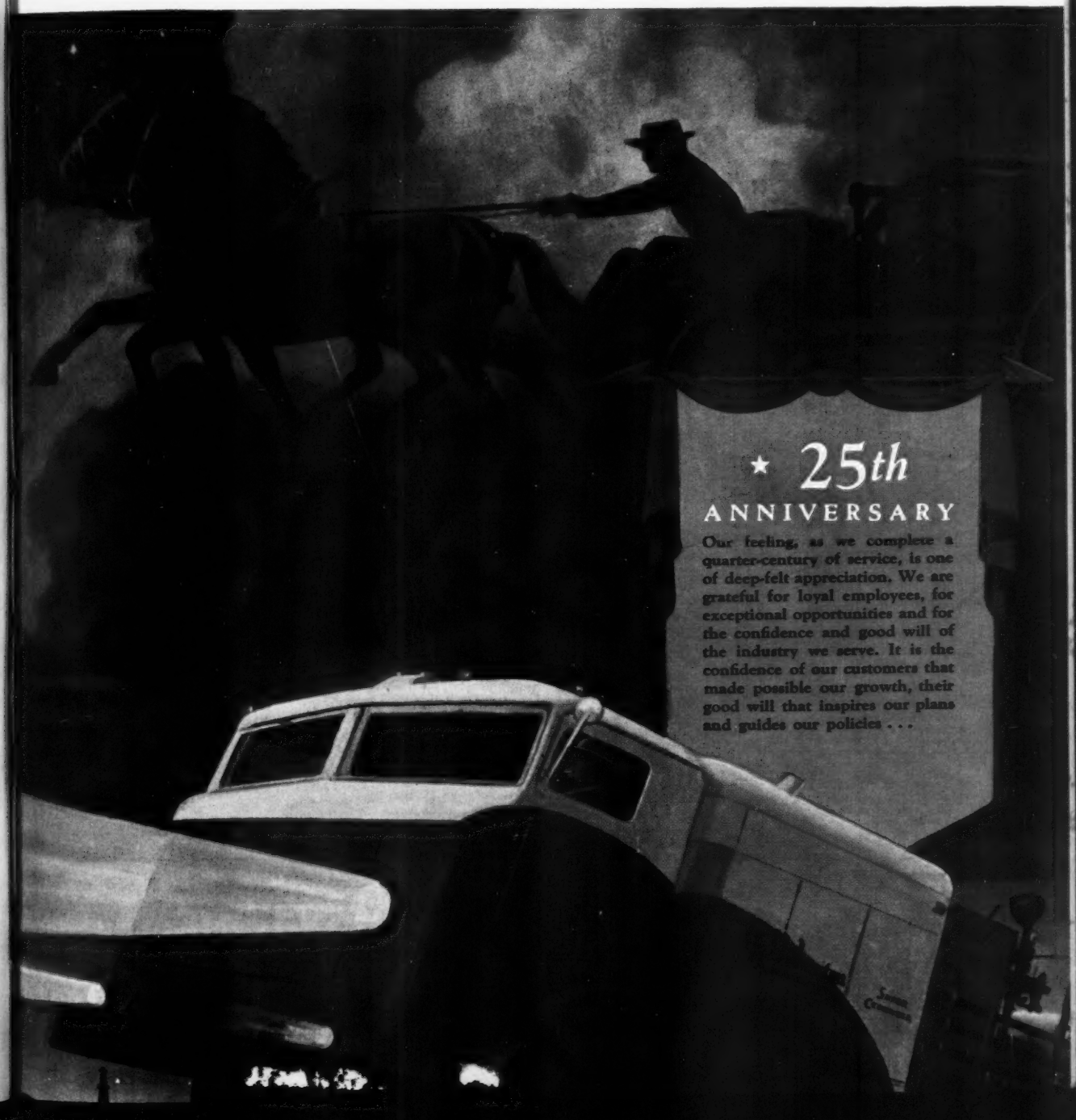
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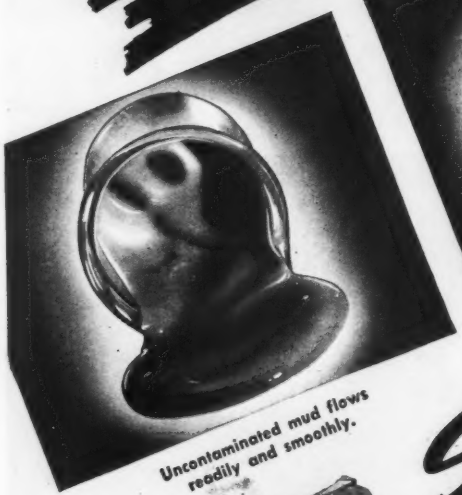

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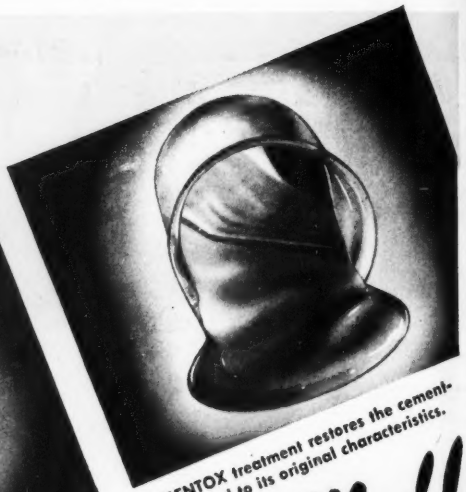

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CALIFORNIA
OIL WORLD

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Washington Highlights

President Truman has sent to Congress a proposal to place in effect "Point 4" of his inaugural address in which he recommended that American assistance be widened to develop the backward or undeveloped regions of the world. The President's proposal in part calls for an appropriation of $45,000,000 for what is termed as American "show how." This phase of the proposal would be worked out either through sending American technicians to foreign countries or bringing foreigners to United States for technical instructions and training. Of great importance to the petroleum industry is the second half of the proposal. Under it the Chief Executive proposes that Congress grant broad authority for the Export-Import Bank to guarantee American private investments in productive enterprises in foreign countries. John R. Steelman, assistant to the president, paid tribute to the contributions of the oil industry to the "Point 4" program. Speaking in Chicago, he said it is becoming more and more evident that the concept underlying this program holds promise of untold benefits for the entire world. He called attention to the fact that royalties of oil produced by American capital have made possible fine hospitals and schools in Venezuela. Moreover, he added, the first railroad ever to be constructed in Saudi Arabia is being built by American capital and being paid for from oil royalties. Washington observers have pointed out concerning the "Point 4" program how national thinking has changed toward proposals in this category since the time when American companies were viewed as exploiting the workers in countries other than the United States.

Unofficially, reports here credit the Mexican Government with acceptance of all provisions of the loan agreement on Mexico's application for an oil loan from the United States. The agreement is said to include guarantees for private U. S. petroleum investments in Mexico.

The Supreme Court has instructed the special master in the California tidal waters case to proceed with studies of seven specific areas of the California coast. William H. Davis, the special master, recommended to the high court that boundary studies be restricted to seven sectors. They are a segment beginning at Point Concepcion and extending to Point Hueneme, San Pedro Bay, the coast lines from the southern end of San Pedro Bay to the western headland at the entrance to Newport Bay, Crescent City Bay, Monterey Bay, San Luis Obispo Bay and Santa Monica Bay. Under a ruling of the Supreme Court in 1947, the Federal Government has "paramount" rights to California tidelands. Davis, formerly chairman of the War Labor Board, was named by Chief Justice Vinson, to study controversial claims over boundary lines between Federal and State jurisdiction. Davis omitted two areas proposed by the State. They are Arcata-Humboldt Bays and Boega-Tomales Bays. The special master indicated that the omission was due to "development and the application of criteria in the recommended areas might be expected to lead to generalization applicable without too much difficulty to other areas."

In line with the recommendation of the Hoover Commission, the State Department is moving to consolidate its foreign service with departmental service.

The Bureau of Mines is distributing an information circular describing properties and safe handling of butane and propane fuels. It is designed specifically to supply information to the growing number of domestic and commercial users of such oil products.

California Standard has petitioned the Supreme Court to reconsider its recent ruling whereby the judicial body upheld a Federal Government anti-trust decision, outlawing the company's "exclusive dealing" contractual arrangements

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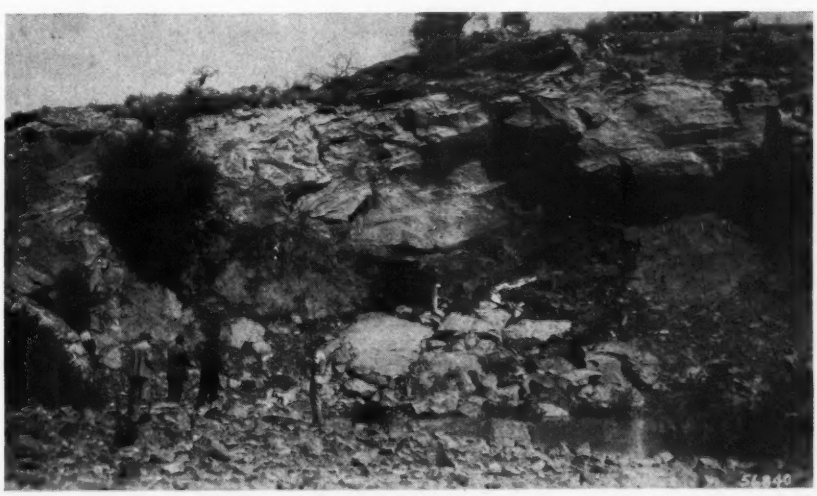
The Edna Tar Sands

Although there is obviously no immediate need for additional sources of domestic energy in the United States, the doctrine of preparedness demands that we investigate now, for possible emergency use, those sources that would seem to lend themselves to economic recovery — or even uneconomic recovery—should an emergency arise. In a recent symposium on oil shale, conducted under the auspices of A. I. M. M. E. in Los Angeles, A. C. Rubel, vice-president of Union Oil Company, advocated the institution of a government financed and industry operated program to develop "commercially feasible" methods of mining and retorting oil shales, and adapting to various uses, shale oils. He was very emphatic in his suggestion that the products of his projected "demonstration plant" should be utilized by the army and the navy, and perhaps by other refiners, but should not by any chance be permitted to enter the open market in competition with petroleum products. It was obvious from the completeness of the discussion that Union Oil Company has already gone far to develop all phases of the oil shale program, and it was further obvious from the disclosures made that "industry operated" research of this type can accomplish in a very adequate way.

It is an interesting indication, too, of the forward looking attitude of the petroleum industry that this oil shale investigation is no new thing. It is not the result of a suddenly aroused fear that petroleum reserves were being used much too fast for our future good. That, of course, undoubtedly accelerated the program, but its initiation took place in America many years ago. This author can well remember in the early 20's aiding in trial runs of a pair of shale retorting units set up by their inventors in Casmalia and Alhambra, California, and even then there were already many articles in the literature testifying to an active interest on the part of petroleum producers in other parts of the country. Outside of the continental United States, it is just possible that the shale oil industry was fairly well established even before Colonel Drake drilled the first petroleum well in 1859. However, the purpose of this article is not to debate historical issues but to discuss briefly one of California's secondary sources of oils and lubricants that appears to fall somewhat into the same class as the oil shales, namely, bituminous sandstone, of which there is a sizable deposit near Edna, south and southeast of San Luis Obispo.

It is not intended here to imply that there is any constitutional relationship between oil shales and bituminous sandstones, but for the purpose of this article they are grouped as "secondary oil sources" and in that respect only may they be considered as of a class. We shall leave the discussion of geneses and possible relationship to the speculative geologists. For the moment we are concerned with the general character of the bituminous sandstones, the probable recovery, quantitative, that is, the method or methods of recovery, and the possibility of refinement into products that will sufficiently amplify petroleum products in time of extended emergency, such as a protracted war. We have had two experiences in the last forty years which have indicated very plainly that the time to look for new sources, and methods of making them available, is not after an emergency has arrived, but before. The petroleum industry has always found it necessary to keep in advance of immediate demand so far as day to day domestic need is concerned, both as to types and quantities of petroleum products required; and we are now devoutly convinced that an equal effort should be made to keep in front of the extraordinary demand which is occasioned by war or other national catastrophe—especially since each catastrophe usually cut off all or a large portion of foreign supply.

Deposits of bituminous sandstones, according to the Bureau of Mines, occur in several areas in California, notably at Point Arena on Mendocino County, about 110 miles north of San Francisco; near Santa Cruz in Santa Cruz County; in Sisquoc area in Santa Barbara County; in the Ojai and Santa Clara Valleys in Ventura County; and in the Edna area in San Luis Obispo County. There are several other deposits of somewhat different character, but they are not important to this discussion. The Edna deposit, one of the largest in California, has been the subject of intensive studies by many individuals and by the proper government agencies. When, during the war it was realized that every possible



Bituminous sandstone quarry in the Edna area near San Luis Obispo, California. The U. S. Bureau of Mines has made some interesting studies of methods for recovering the bitumen from these sands and refining them into usable products.

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source of fuel should be tapped, an arrangement was made whereby the United States Geological Survey would map the various California deposits; the Bureau of Mines would develop extraction methods; and Petroleum Administration for War would "aid in final adoption of the results in the field if circumstances warranted such action." Since P. A. W. was largely composed of petroleum industry technicians "loaned" to the institution for the duration, the set-up was pretty close to that which A. C. Rubel now advocates for the development of oil shale mining and processing.

About 1887 we are told the bituminous sandstones of Edna were being quarried for paving material, and the activity continued for quite a number of years. From 1887 to 1915, records show that approximately 155,000 tons were shipped, but the business steeply declined thereafter and in the next ten years had ceased entirely. An organization known as the California Oil Mining Company began operations in 1922, seeking to institute commercial recovery of oil, but although a plant was erected and several shafts were started into the more richly saturated areas, where oil content was as high as a barrel to the ton, the project appears to have been unsuccessful, and in any case it was ultimately abandoned.

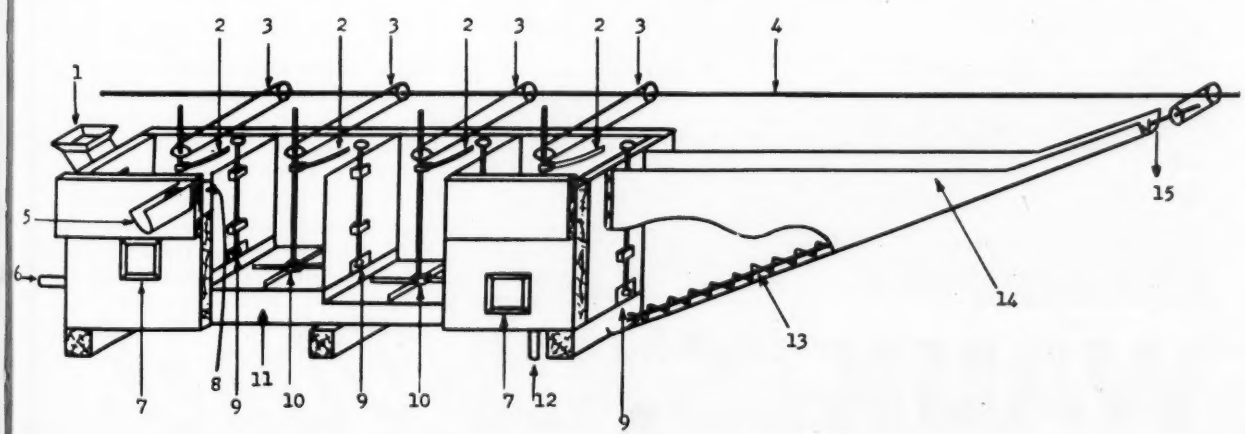
The Geological Survey mapped the Edna deposits between 1943 and 1944, in conformity with the plan already mentioned, and reported then very favorable for surface mining. It was estimated that within a specified area there were about 166,400,000 cubic yards, or 282,880,000 short tons of bituminous material. Tests indicated that this material, at least a large part of it, contained about 11% bitumen by weight—the equivalent of 44 gals. per cubic yard, or 26 gallons per ton.

The particular bituminous sandstones that are found in the Edna area are contained in the Pismo formation which outcrops over a wide area. This Pismo formation appears to have no pronounced constitutional or lithological character—the bituminous sandstones are irregular in deposition, and while for short distances they seem to follow the bedding they are in the main discontinuous and uncertain. They are more weather resistant than are the non-impregnated sections of the Pismo formation and are, therefore, prominent in the topography. The U. S. G. S. Preliminary Map 16 cites two cliffs just south of Edna that rise one above the other to a height of 270 ft.

The outcrops also show considerable variation in the apparent degree of saturation. They range from black heavily saturated sand to light browns that carry a low concentration — the most prevalent variety being a dark brown more or less intermediate material. The individual deposits may display gradations all the way from white clean sandstone to the heaviest impregnation in a very short distance, and the richest, dark species is usually found only underground. The lean stone is soft and friable; whereas the intermediate material is hard and tough. However, it is to be noted that usually the weathered outcrops, while in themselves worthless from a recovery standpoint are markers that indicate the presence of richer deposits in the sub surface, some of it so saturated as to form seepages when exposed to the warmth of the sun.

It is conjectured by the U. S. G. S. that the oil which is found in the Pismo sandstone may have originated in the shale and siltstone of both the Monterey and Pismo formations. It was, of course, much more fluid at the point of origin, and it migrated upward through the permeable sands, concentrating in the coarser grained material with its larger interstices. In the levels nearer to the ground surface, the volatile materials were evaporated, and the residual asphalt formed a binder that prevented further escape. The records of wells in the Edna field indicate, in support of this theory, that the oil in the sand stone is fluid at depths of several hundred feet.

A considerable proportion of the Edna tar sands either outcrop or are covered by very thin patches of sandy soil. They are consequently easily mined from the surface. Many investigators have studied the deposits both from the stand-



Diagrammatic drawing of multiple-cell flotation unit.

1, pulp inlet; 2, scrapers, 3, chain drives; 4, drive shaft; 5, bitumen discharge; 6, steam inlet; 7, glass windows; 8, trough for overflow of bitumen; 9, adjustable openings; 10, impellers; 11, steam chest; 12, steam outlet; 13, screw conveyor; 14, sheet metal trough; 15, sand-tailings discharge.

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point of oil recovery, and from that of subsequent refining, and, of course, tremendous help has been derived from the long extended researches that have been conducted on the tar sands of Northern Alberta, Canada. The latter deposition is so immense, it has been estimated, perhaps a little recklessly, that it represents an oil reserve equal to the entire population of the American petroleum industry from its beginning to the present time. How extravagant that estimate is we don't know but we do know that the amount of recoverable oil is prodigious. We know also that the work which has been done on these tar sands has helped very substantially to shape the process research on the Edna deposits.

The Canadian Government in 1920 launched a definite program designed to evaluate the hot water method of separating bitumen from bituminous sandstones. This method had been tried at various times in Canada, the United States, Scotland, and other countries, but mostly with just partial success. It was in this instance, however, expected to develop all the fundamental principles involved, and, indeed, to so advance understanding of the process as to determine its applicability commercially in treating the Alberta sandstones. Prior to this time recovery by the hot water method had been uneconomical because only incomplete separation was achieved and a sizable percentage of the bitumen remained attached to the sand tailings.

In succeeding years the Bureau of Mines has been especially active in both laboratory and pilot plant studies, and a great deal of correlative data have been developed, on the bases of which the mechanism of separation has been very well established. It is only fair to note that the definition of the processes involved has been largely hastened by consultation with many prior investigators, and by consideration of the many pertinent published items. It is interesting, referring again to A. C. Rubel's recent address on the economics of the oil shale development, that finding costs, which are a sizable item in oil operation, are nil as far as shale oil is concerned. And the same can be said for the bituminous sands—the entire cost in this case is attributive to mining, separation, and treatment, and discovery costs are completely eliminated.

It would seem from carefully conducted analysis of the Edna sands that the bitumen content varies quite widely, but that it averages approximately 11%, equal to 26 gallons per ton of sandstone. This was based on some large scale sampling of deposits rather close to the quarry face—within a four foot penetration. The water content of the sandstone ranged from 1 to 3%, and its porosity was roughly 36%. The bituminous content of the sand had a calorific value of 17,999 B.t.u. per lb., and a sulphur content of 3.2%. The reserve estimates already quoted, namely 282,880,000 short tons for the area mapped by the U. S. G. S., covers a survey to a depth of 250 feet. However, it is known that the deposits continue below that depth, which renders the estimate rather conservative. In addition, deposits covered by more than 50 feet of overburden were not taken into consideration. Assaying half a barrel to the ton, the potential recovery of the Edna deposits here discovered would be approximately 141,400,000 bbls. of bitumen

The hot water method of separating the bitumen from the sandstone is based on actual displacement of the oil from the sand grains. It has been found, however, that the displacement is more readily and completely accomplished by an alkaline solution than by pure water. Basically the water to be most effective must be sufficiently alkaline to neutralize any acidity in the sandstone, and in addition, the sandstone must be thoroughly disintegrated and intimately mixed with the displacing medium. The process then is carried on in three distinct stages:

1. Formation of an alkaline pulp by heating and mixing the bituminous sandstone with water and the requisite quantity of alkaline reagent. This separates the bitumen from the sandstone in an "oil froth," which receives further buoyancy from occluded air bubbles.
2. The components of the above mixture are separated by submersion in hot water. The froth floats to the top and the sand grains sink to the bottom.
3. Treatment of bitumen with light oil to remove water, sand, silt, etc., and subsequent settlement to effect greater purity.

It was found when attempts were made to separate bitumen from Edna bituminous sandstone by the methods used in Alberta, that the separation was complicated by a reaction between certain soluble substances in the sandstone and the alkaline solution used in the process. These reactive substances were identified as iron and calcium sulfing present. The presence of these phates, with smaller quantities of sodium and aluminum sulphate besalts interfered very drastically with the separation, forming gelatinous precipitates of iron and calcium hydroxides that picked up silt in the pulping operation and trapped considerable quantities of bitumen in the slimes thus formed. Some of these slimes actually contained as much as 50% of bitumen. This problem was largely solved by washing the bituminous sandstone with hot water and thus removing the iron and calcium salts, which are water soluble.

The acidification of the ferrous sulphate prevented separation of bitumen during the preliminary

Exploration costs in the bituminous sandstone development are nil. Such costs are a sizable item in petroleum production. The geologist is here mapping an interesting area.

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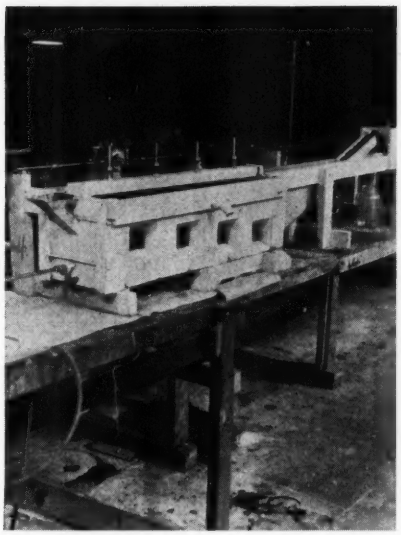
washing, since as already noted an alkaline condition is necessary to the highest degree of displacement. At the time time, washing out of the salts reduced the requirements of reagent needed to alkalize the liquid during pulping. The pulping, incidentally, is generally agreed to be the most important part of the process. When properly carried out it can bring about almost perfect separation, thence complete ultimate recovery of bitumen. Conversely, if the pulping is not properly performed, incomplete displacement results, with a high retention of bitumen in the sand, and a high percentage of sand and silt in the oil froth.

A laboratory separation plant, capable of treating twenty-five pounds of bituminous sandstone per hour, was designed for the treatment of Edna tar sands. In actual operation the bituminous sandstone is fed through a hinged door into a revolving screen drum, which is partly submerged in a hot water tank. Here it is reduced in size by abrasion, and the rolling action of some iron balls, until the particles are small enough in size to pass through a six-mesh screen. The balls also help to force the crushed sandstone through into the hot water tank. It falls to the bottom of the latter, receiving a preliminary wash on the way, and thence is picked up by a screw conveyer and carried to the first unit of a multistage counter current washer. It is then carried through two more stages of washing, and then is partially dried on a draining screen prior to being transferred to the pulper. The soluble salts are pretty completely removed in these three washing stages by a hot water stream that enters at the top of the third washer and travels back counter current to the movement of sandstone. The wash water in each unit is kept at 175° F by means of a steam water jacket, and as it overflows each unit, is caught in a settling tank where solid matter is removed before it goes to the next unit. It finally travels through the tank containing the screen drum and passes out through a waste disposal pipe.



Multiple-cell flotation unit used by the Bureau of Mines to separate bitumen from the bituminous sandstones of Edna.

The washed bituminous sandstone is next pulped in a rotary machine with a light fuel oil diluent, aqueous solutions of sodium carbonate or sodium silicate or both, and heat. In this manner a frothy alkaline pulp can be formed in which the bitumen is entirely displaced from the sand grains. The purpose of the light oil diluent is merely to reduce the specific gravity and viscosity of the bitumen and thus facilitate its separation and flotation. The pulper used in this instance was merely a five gallon cylindrical container mounted so as to revolve on an inclined axis. It is turned at a speed of thirty revolutions a minute by an electric motor and reduction gears. A ten pound charge of the washed sandstone, with the diluent and reagents, is placed in the pulper and heated to 210-212° F with Bunsen burners. The flames on the burners are adjusted thermostatically so that the temperature can be maintained within the prescribed limits.

This species of pulper permitted the closest observation and study of the process, and its consequent adaptation to achieve the best results in the shortest time in the treatment of the Edna tar sands. At the temperature already mentioned, 210° F, it actually requires about seven minutes to accomplish the separation of a frothy oil pulp from the sand grains. With respect to the diluent used, it was found on analysis that the Edna bitumen was aromatic in character, and that in consequence the best solvent effect was acquired when the light fuel oil was also sufficiently high in aromatic content. This prevents dispersion of the bitumen which is difficult to avoid when the wrong solvent is used. Fine results were obtained on the Edna bitumen with a No. 3 Fuel Oil, of 33° API gravity, having an aromatic content of 23%, using one third of a barrel of diluent to each estimated barrel of bitumen in the charge. Larger proportions of diluent were found to produce undesirable effects.

Speaking now of the alkaline reagents — sodium carbonate and sodium silicate—it is pointed out that the detergent action of the silicate reduces the surface tension of the enveloping bitumen on the sand grains and frees it more effectively, but the sodium carbonate, on the other hand, is more alkaline—and cheaper than the silicate—hence is better for reducing the acidity of the pulp. It seems also that hydrogen ion concentration can be utilized as a means of control. When pulped at pH 8 best results were obtained, and less bitumen was lost to slimes than when the alkalinity was below pH 8. The quantities needed to acquire the degree of alkalinity were 1-5 lbs. of sodium silicate per ton of bituminous sandstone.

Another factor that markedly influences results apparently is the consistency of the pulp, which is determined by the quantity of water used in pulping. This is controlled mainly by the water content of the washed bituminous sand before it enters the pulper. Between 10% to 20% of water by weight there is a wide range of consistencies varying from a viscuous (dry) pulp to a very fluid (wet) one. The medium viscosity resulting when the washed Edna sands contain 15% water by weight, however, separates the bitumen most completely, and in general develops fewer undesirable contingencies than either the extremely dry or

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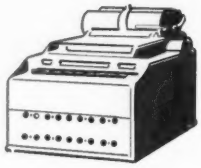

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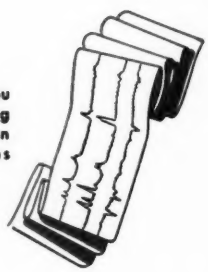
When you use a Schlumberger log, you are using a log and a method of logging developed and proven by over a million operations in all types of formations throughout the world.



These and many other reasons give you assurance that when you call Schlumberger, you get the best!

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HOUSTON, TEXAS

extremely wet condition.

Separation of the oil froth is contrived by introducing the pulp into hot water at 210° F in a multiple cell flotation unit (see photo). This unit has a string of four windowed cells and a trough in which a screw conveyor operates. The floor of each cell is the top of a steam chest that heats the water content. Each cell is equipped with an impeller and is progressively one inch deeper than its predecessor. Pulp enters the first cell where it is agitated and "rolled" by the impeller, and most of the aerated oil froth is floated to the surface. The treatment is continued in the other three cells, sand being discharged en route through openings in the cell partitions by the blades of the impellers. Sand tailings are eventually carried from the fourth cell by the screw conveyor. Time is an important element in this phase of the treatment, and it is controlled by adjustable gates, operable from the top of the cells. Oil froth collecting on the surface is moved by a series of skimmers into a trough and thence to a steam jacketed conduit.

An analysis of this oil froth shows it to contain approximately 6% sand and silt, 21% water, and 75% diluted bitumen, and, as already explained, the water and mineral matter are separated from the bitumen by increasing the gravity and viscosity gap between them. After the addition of the diluent, a most effective separation is accomplished by maintaining the diluted froth at 180° F while it is circulated and mixed by a motor driven screw in a double barrel type container. The mixture enters the top of the inner barrel. The diluted bitumen overflows through an outlet pipe near the top of the device into a cone-bottom settling tank where it is given a hot water wash, also at 180° F. The partly clarified oil overflows from the top of this settling tank, and is given a final settling period in another tank at a somewhat higher temperature—200° F.

The sand, water and silt collect at the bottom of the settling tank and are moved by scrapers to the center of the tank whence they drain through a bottom outlet valve. This action also frees some of the bitumen that still adheres to the sand. Sometimes at various stages of the process considerable trouble is caused by emulsification due to the presence of fine silt, but the oil industry is now thoroughly experienced in the breaking of water-oil and oil-water emulsions, and treating chemicals have been used effectively to resolve the ones encountered in this series of operations. The settling effect is largely controlled by the quantity of diluent used and its gravity but there seems to be a point beyond which the addition of diluent does not make sufficient difference to warrant the increased expense. Using the No. 3 fuel oil already mentioned, the settling and separating effect appeared to be negligible when the quantity of diluent used exceeded twice the quantity of bitumen.

Summing up, all evidence points to the fact that under the right conditions, 95% of the bitumen in the Edna sandstones can be recovered by the method here described. This is based on an 11% bitumen content and represents a recovery of 24.7 gallons per ton of bituminous sandstone. When it is remembered that petroleum recovery from underground reservoirs, according to the experts, averages about 75%, that sounds promising.

There seems little doubt that with all the tools now in the hands of the refiners, the bitumen can be shaped into fuels and other products that will help to amplify our emergency needs, and perhaps our ordinary every day needs when petroleum production finally gets below the level of domestic requirement and reserves are sufficiently exhausted. Methods of desulphurization, hydrogenation, cracking, and decoking have already been fairly well developed for the shale oils, and there is no reason to believe that the refining of bitumen from sandstone should present any greater problems. In any case the Edna project is evidence of the fact that the bituminous sandstones, of which there are sizable deposits in the United States and Canada, can be depended upon as a secondary source for the amplification of our oil supplies when such amplification becomes necessary.

Most of the illustrations and most of the data for this article were furnished to California Oil World by the San Francisco office of the United States Bureau of Mines.

So. Calif. Meter Assn. Schedules July Meeting

Claude Knolte, Field Engineer with Barton Instrument Company will address the July Meeting of the Association.

Mr. Knolte's presentation will be the "History of Bellows Actuated Flow Meters." The paper will cover construction and operation of differential pressure measuring devices. The speaker will offer a resume of the developments and improvements found available in today's equipment.

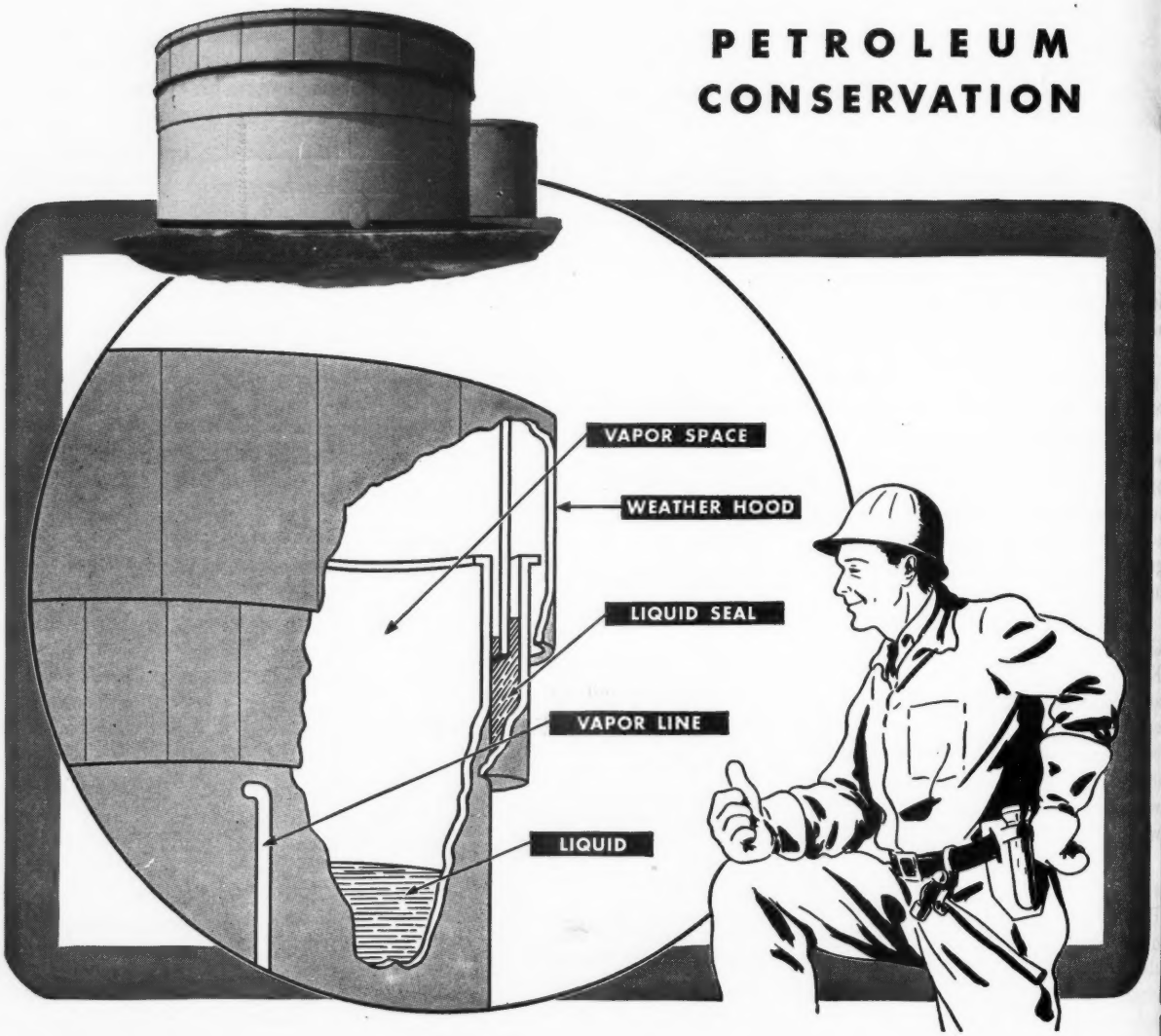
As a control instrument engineer of many years experience in process and field application, Mr. Knolte brings to his presentation a wealth of background in application installation and maintenance of this type of measurement device.

The Meeting will be held at the Rio Hondo County Club on Thursday, July 21st. Dinner will be at 6:30 p. m., the Meeting at 8 p. m.

Frank Jones has joined Hoover Drilling Company as business manager. Don Hoover at the same time has been made vice president and treasurer of the company. Marshall Smith has been elevated to drilling superintendent. Hoover is running several strings of tools in fields at Cuyama Valley.

It's a duster Buster for Bing and Bob. Bob Hope and Bing Crosby's first well, a wildcat test in central Scurry County, Texas, was a duster. The film and radio comedians were co-partners with veteran oilman W. A. Moncrief in the well called Dewey Moore No. 1. It was carried to a total depth of 7980 ft.

PETROLEUM CONSERVATION



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The savings the Expansion Roof makes are NOT based on vapor conservation ALONE. Elimination of maintenance costs, too, is important when considering petroleum storage equipment.

The Expansion Roof has cut maintenance to a point where nothing more than periodic painting, the same that ANY steel plate structure requires, is all that's called for. Simplicity of construction is the reason... no counterweight system or other complicated devices to fail, wear out or require maintenance. All adjustments are easily made from the outside of the tank.

For complete product protection in any climate... in single or multiple tank installations (through manifolding)... specify the Expansion Roof. Stop breathing and filling losses and at the same time cut your maintenance costs.

The Expansion Roof is a patented Graver product, designed and developed by Graver.

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Kern County OIL NEWS

KERN PICTURE. . . . Changing demands . . . Prices down . . . Demand dropping . . . Easier operation . . . relax with less tax . . . and finally make as much or more money. Keep production allowable matching . . . less hurry . . . no fussell russell bussell . . . live longer. Kern operators are all in good shape. Getting a dollar sixteen . . . no more cuts . . . "quite sure of it . . . You 12 gravitywigs" . . . Remember you used to get 60 cents.

COAST COMPLAINTS and Cuyama Cussing does not affect Kern County appreciably . . . its all "TB" too bad. San Ardo's 44 cents at well is not an omen. Coast is typical. Other leases . . . many of them continuing here. Fact is we are well off compared to many worldwide areas.

HAVENSTRITE at South Edison and Tejon Hills at Comanche Point still latest puddles along new discovery items in Kern. Lots of the old activity going on. Cuyama continues to demand Kern know-how and materials. Supplywigs are not complaining . . . nor do we hear about any appreciable layoffs . . . only threats of layoffs . . . at the production hole.

LITTLE CAROLYN HORN-KOHL matriculated at Stanford last month to major in Bacteriology as it relates to the formation of oil. Frank is happy to see a "like father like daughter" occupation reflex . . . and he should be proud.

NO IT ISN'T "fresh" oil recovery . . . but FREESH OIL RECOVERY COMPANY that is operated by Charles W. Freesh. Heavy oil transfer . . . portable units vacuum tank work, that "Chuck" features, but hardly anyone of us knows enough about what he does.

HOWARD C. HEYN of the Associated Press Los Angeles was a recent visitor here. We are grateful for the many fine wire stories he has made for us as a result of our efforts and yours of the oil country.

BEST OILWIG MINDED banker we have met outside of Kern is Louis B. Everett who spent much of his time in the oil country and when he went up to the Anglo in San Francisco it came in handy for him and so frequently we see him down here counting wells and sheep with Friendly Fred Carlisle the local Manager at this point.

LANDMAN MARTIN for the Independent Oil Companies came to town last fortnight and a half ago. From Long Beach, he naturally knows a lot of Signal Hillers. While here he scouted the Cuyama and Carrizzo Plains in, a-man-must-get-one-lease attitude. After a course in geography, one in geology that moves with the wind, and an affair with psychology we settled down to a delightful gossip going hour of information and misinformation.

JACK B. SEIPLE righthand loan man of EDDIE MAHONEY'S Security First National Bank is another nice guy who knows a lot 'bout oil and he lives on "geology hill" right next door to attorney Norbert Baumgartner who's big joy would be to discover oil on Kern County Government land and draw up a lease good enough to pay all the taxes for cost of county government.

GEOLOGISTS FROM THE HILL report that the possibilities are never too remote.

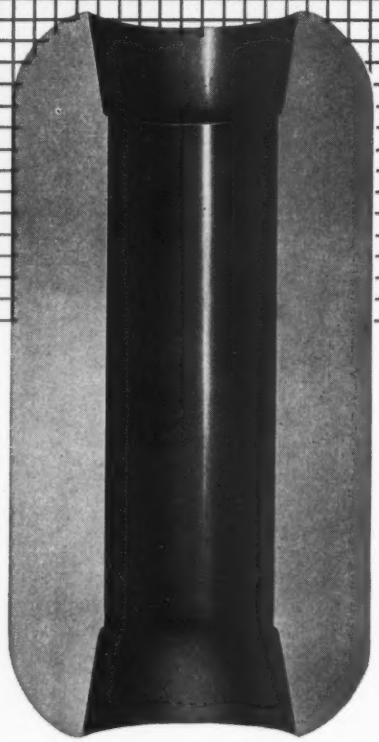
GUEST INFORMANT publisher EDWARD A. SPITZ was up this way looking over the prospects of business for hotel information with an eye on how the oilwig fits into the picture with his wares and services.

BEST BET BARGAIN for a sensible evening on anything including

DOCTORS OF MUD degrees were awarded the final class of the . . . year by WARD KLINK, "Gee Pee" instructor Bakersfield Evening . . . High . . . in cooperation with the "AAOWDC," California Branch. CHARLES GLAZNER, Loffland Brothers Drilling Contractors, is the recipient as GUY W. GARRARD Director of Adult Education looks on. Waiting for certificates are, FRANK JONES Past Secretary AAOWDC and JOHN VAN OSDEL, co-ordinator of Oil Industry Adult Education program of the school.

Cross Section of Quality

or why Patterson-Ballagh Casing Protectors last longer



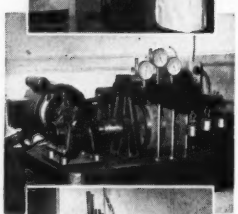
These tapered recesses allow less stretching at the ends, keeping stress here less than in thick body when Protector is installed, thus eliminating tearing at this vulnerable point.

Quality Protectors come from quality workmanship in the shop and laboratory. This new shock-proof, tear-resistant Casing Protector represents endless hours of testing in both laboratory and field. Now it is *field proven* and ready for your drill pipe.

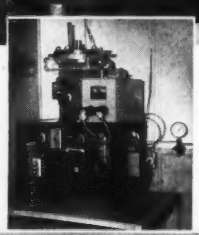
This new design meets the rough use and abuse of deep drilling. Engineers know that rubber under less stress will withstand more shock and tearing action than highly stressed rubber. Since the ends of a protector take the greatest beating down the hole, the tapered ends of the new Patterson-Ballagh Protector are not stressed as highly as the body, yet they grip the drill pipe firmly and prevent any fluid from getting between the rubber and drill pipe. These resilient ends allow the Protector to absorb shock and resist tearing action at this point.

To further insure proper rubber stress, *every Protector is designed for one, and only one, size drill pipe.* Call your Patterson-Ballagh man and have a new Protector installed on every length of drill pipe.

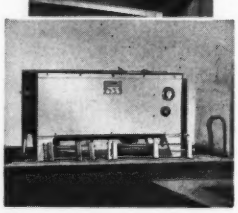
Tensile testing machine tests rubber samples from each batch of rubber to insure quality control.



This machine tests the abrasion-resistance of rubber samples—another example of why we know our Protectors will give long wear.



Rubber samples are aged, equivalent to two years, in a few hours time in high pressure oxygen ageing equipment.



The resistance of rubber under tension to hot oil is determined in this bath that simulates actual operating conditions.

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pumps is WILLIAM N. BEADLE "vp" of Byron Jackson Company. At the Johnathan Club couple of fortnights ago it was our delight in having him attend a Los Angeles-Kern County chamber of commerce transportation meeting. Principal subject . . . HIGHWAYS . . . "piece de resistance" TEHACHAPI TUNNEL.

JOHN OLSON has been transferred to the Texas branch of the Sante Fe Railroad's oil operations.

GENE VALLAT of Ohio Oil Company left for a three month session in Alaska, without saying "goodby" to us here on the typewriter. RAY BERRYMAN will be in charge of the Geological Department in GENE's absence.

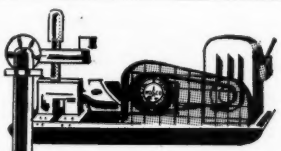
OILSCOUTS discovered something last month that turned out to be just more than oil. After a pitcher's duel in their opening game ending 17 to 16 in favor of the other team, they discovered they lost. The oil scout softball team is sponsored by the major oil companies. We didn't get it very straight but it must have been two teams both geologists and oil scouts. At least two scout teams . . . so you can say "if they win they lose too."

BUT THAT IS NOT MORE THAN they discovered either. Another thing, is Barbecue, it always tastes differently but good and better at each Annual Picnic at Shell Park where the 1949 barbecue doo took place. Both the usual outdoor and indoor sport activities obtained with all departing at an early hour . . . in the "am" . . . that is. No wins, no errors, no losses . . . everybody had a benefit and a dividend in some manner or how.

"LET EVERY action support the objective to which we have dedicated the (. . .) . . . TO sponsor and encourage the production and distribution of more goods and more services for more people. TO create more jobs for workers, TO conserve and increase our community resources . . . "

THIS ABOVE was found on the back of an old envelope we found in our pocket the other day. Don't know who wrote it . . . or where we now saw it . . . Don't know why the blank space or nothing . . . MAYBE SOMEONE DOES KNOW . . . anyway we thought it represented the present day oil industry leader

TO STANFORD in June went CAROLYN HORNKOHL, daughter of FRANK owner of the Laboratories of the same name HORNKOHL, to major in Bacteriology. Just seventeen and graduated from CASTILLEJA in Palo Alto, Carolyn hopes to give some answers in the formation of oil, as it is related to bacteria.



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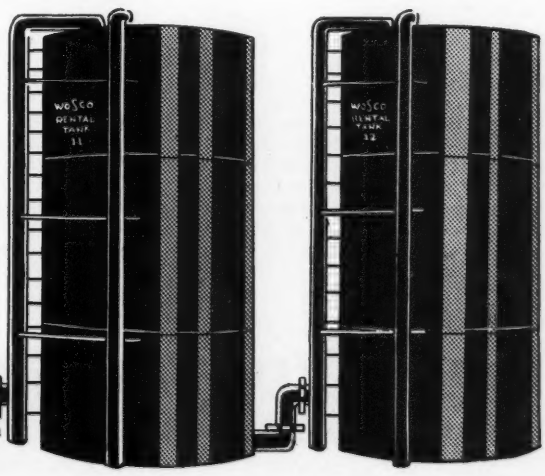

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WESTERN OILFIELDS SUPPLY CO.

Aviation gasoline for automobiles

1. Two months after the end of World War II, most oil companies were back on the market with first-quality "regular" and "premium" gasolines. To a motoring public which had been sputtering along for three years on strictly rationed, low-octane gasoline, the event was something of a field day. Everyone drove everywhere and gasoline sold like hotcakes.

2. Under the circumstances you'd hardly expect an oil company to pick that time to come out with a still better product. But, less than one month after Union Oil had put its "regular" gasoline (76) and its "premium" (76-*Plus*) back on the market, the company announced a brand-new product—7600. 7600 was actually an aviation gasoline slightly altered to meet automobile operating conditions.

3. Its performance was so superior to anything the average motorist had ever experienced that people practically stood in line for it. In fact it was months before we got our production up enough to keep our stations from running dry. Today, almost four years later, 7600 is still the top-quality gasoline in the West. And people are still buying all we can make.

4. However, the important point of the story—to our way of thinking—is this: we made 7600 available *on our own initiative.* The customers didn't demand it. Conditions didn't make it necessary. But we knew, even though the public was more than satisfied with our present gasolines, that a still better one would win us more customers. And we were in *competition.*

5. If the oil business had been a monopoly—private or governmental—this would not have been the case. For there's no incentive to go after more customers *when you already have them all.* But, because we didn't have all the customers, we had a very good reason for introducing an improved product.

6. All of which goes to prove, we think, that the only way you can guarantee *maximum progress* in an industry is to have an economic system that guarantees *maximum incentives.* Our American system, with its *free competition,* provides these to a degree no other system has ever approached.

UNION OIL COMPANY
OF CALIFORNIA

INCORPORATED IN CALIFORNIA, OCTOBER 17, 1890

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 14, California.

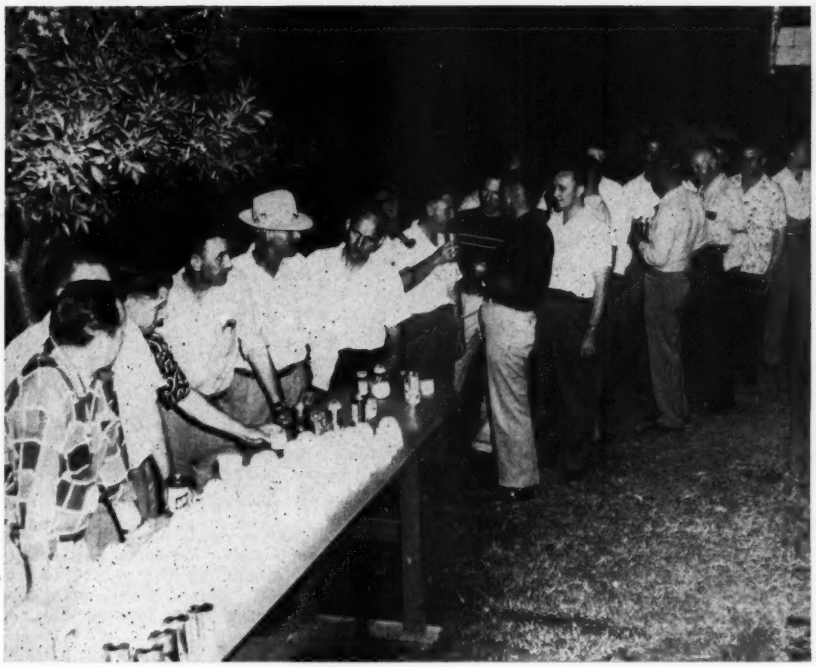
and everyone in the petroleum business that we could insert any of the oil concerns that are in business in Kern County.

BOB ANDERSON of NOTS over in China Lake is a director of industrial relations for NOTS in Kern County . . . . presently he should like meeting the oil men of this county. New source of information for associations. TAKE NOTICE.

JUST HEARD FROM Ralph E. Brodek paper director of OIL SCOUTS softball team. First half has ended . . . last half begins . . . they are playing in the Industrial League now . . . within sight of the top team on the list The "won four lost six" standing will be avenged in the last half for July. For your information Topper Taxi topped that first score 17 to 16 . . . chucker duel.

TAFT CHAMBER of Commerce has a new manager in WARREN BRUCE who left one mineral MOJAVE area for another. Good luck Bruce and may Mojave find another Bruce which will be next to impossible. Congratulations TAFT OIL WIGS who will find an unusually applicable chap to your needs on the WEST SIDE of Kern County. Draw upon him freely.

GREATER BAKERSFIELD AND KERN COUNTY have completed their second western states air tour of goodwill. Leaving here on a Tuesday morning it was break-



ALL GOOD SCOUTS but not all scouts are oilscouts as shown here by the "X" Annual OILSCOUT BARBECUE held at SHELL PARK just across the Kern River (formerly the Rio de San Felipe) from Hart Memorial Park.

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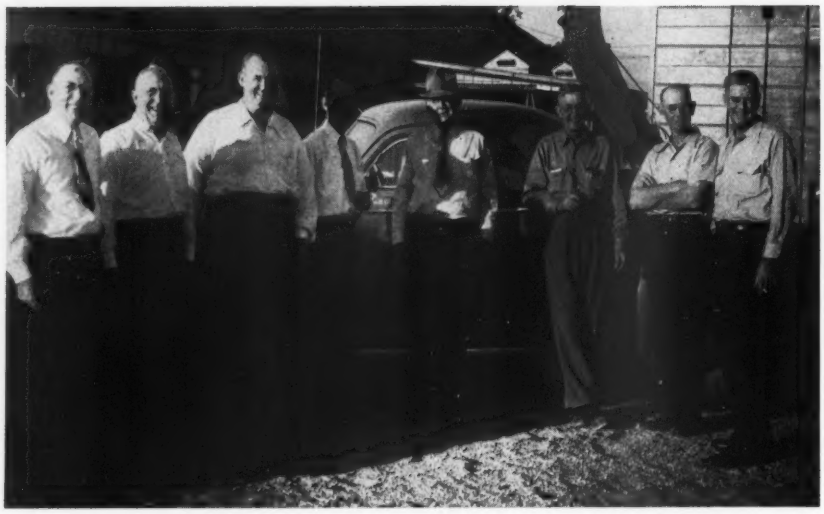

The reinforcement hour for Security Engineering Co. Left to right: Borderly Loge, tool pusher for Standard Oil; Bob Cook, Vice President and Sales Manager for Security Engineering Co.; Walle Goff, Standard Oil Co.; Red Dittman, drilling supt. General Petroleum Corp.; W. F. (Frank) Whitmore, drilling foreman, General Petroleum Corp.; Red Pugh, driller for Standard Oil; Paf Robinson, Asst. General Sales Mgr. for Security Engineering Co.

fast on DC6; luncheon on Phoenix, Dinner and room with Denver a tour and a takeoff for Las Vegas and home Wednesday after luncheon with Governor KNOUS and dining . . . with the HELLDORADOES in Vegas.

KERN COUNTY BUDGET has been completed after two whole months of tremendous work. HARRY A. HOPKINS for the oil industry must have helped in trimming at least a million dollars off an 18 million dollar final. If he didn't slice it all he prevented it from being piled on. Supervisors were grateful for his help because the demands were terriffic. Encouraging note is, however, that Kern is way down the list on rates.

SPEAKING OF BUDGETS and so forth . . . this is the record year for assessed valuations according to predictions. A half billion total is expected . . . but next year it is going to be different . . . "the pinch is on" so they say. Less goods and services are to be demanded . . . less can be given . . . so the peak of peaks is probably over.

WHY DO FOLKS come up and holler for special services one week and then in a few weeks holler about taxes?

FIFTY YEARS AGO according to the Californian, Bakersfield was to get a brewery. Prospects are still open after several tries according to the oilboys of yesteryear. "We would rather drink it than make it", said one petroleum production pioneer.

INCIDENTALLY shares went on sale June 20, 1899, for the WESTERN OIL & DEVELOPMENT COMPANY. FORTY YEARS AGO two Japanese were seeking a lease Sec.26, 32-23. A gasoline stove caused a fire.

SUE HOWELL of Shell Oil Company's OLIVER HOWELL family has returned after a 50 thousand mile trip since crowned MAID OF COTTON in Memphis first of this year. SUE HOWELL DAY was created by the Board of Supervisors and a half holiday declared. Every June 25 the oil industry up here will not forget to mark the day by some tribute which will show how important OIL and Cotton are to each other. BOTH ARE WORLD LEADERS IN COUNTY PRODUCTS.

ROBERT W. WILSON of Fellows oil area was killed in action over Germany in 1944 was well known in Kern County. The young officer's body was returned for private services at the Westside Cemetery last month.

WORLD'S GREATEST ROAD is the new title for U. S. Highway "99" the "Main Street of California" which was given this name by TOM MCMANUS at that time in 1939 a

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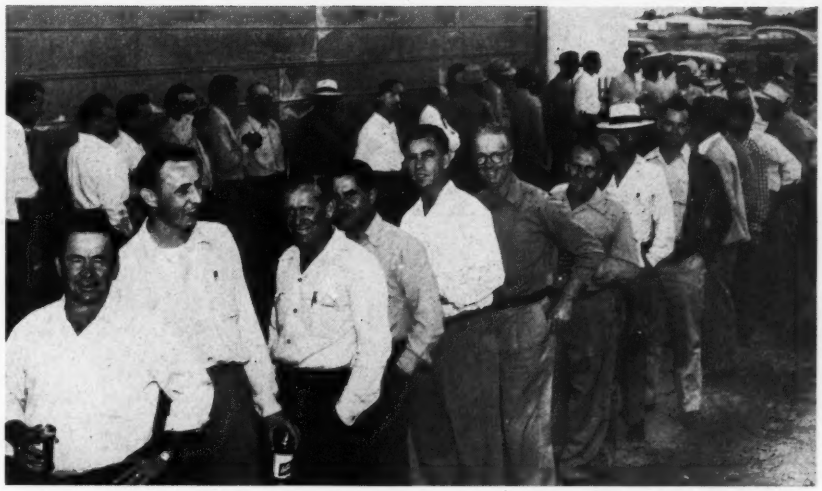
the suggestion of groups of the chambers of commerce helping him promoting Central California Travel Association embracing 99 Highway.

STANLEY ABEL is now doing a yeoman service to "99ERS" along the best route in California. Naturally this carries more people and more people are likely to have more trouble, less information about conditions and tourist lure. In addition Stanley has been doing a big job for the oil folks and those who support the industry.

DRILLING CREWS on the Mushrush V are all overdue on their vacations on account of having trouble with the electric log. However, what have vacations got to compare with the possibility of bringing in the world's largest deepest producer. This is what they say they said.

WE TRIED TO CALL Charley Manley of Oil Field Construction. He only lives around our corner, but he is hard to meet although often seen. We wanted to thank him for subscribing to one of the local papers up here so that Bob could win one of those gasless midgets. Bob wanted to try out this free enterprise system on his own without Dad's help. Thanx Charles. Hope you didn't know it was our Bob.

JUNE IS AN ANNIVERSARY month for Hopper Machine Works. It was in June, 1927, that F. A. HOPPER Sr. completed negotiations with the Associated Oil Company for the plant as it now stands and is known.



Pictured are just a few of the several hundred guests at the Security Engineering Co.'s barbecue.

MEXICO TO KERN COUNTY or "visa versa" but add "and return". This much talked about tour is for OILWIGS, RIGS and WAGS of the industry. Los Angeles is cooperating. Six industrial plants here sell to Mexico. Its a chance to do some business and relaxing. Those concerns who cannot go as officials in some cases, are sending down representatives. RESERVATIONS can be made at either the PADRE or EL TEJON where travel agencies are now making up orders for the August 15th ten day trip. OILMEN are given first choice on reservations.

GOSFORD'S first field failure since its discovery was just registered as you know, and about the same time a failure showed up in Kern Bluff pool. However, the puddles in the south country around Arvin are also still worthwhile exploring.

CARRIZZO CATS are still wild and their population is on the increase. Everyone thinks he has something . . . well maybe he has . . . we hope so over here.

LATEST DOPE on the Barnett Saunders trip to Europe is that they landed. George Barnett and Bill Saunders are visiting all of Europe and returning to school at St. Marys and Stanford respectively . . . after settling down from summer vacation. Times are tough everywhere these days in the oil country.

KERN COUNTY was saddened . . . and we mean just that . . . over the CAB disapproval of the San Joaquin Valley extra commercial air travel services. Present facilities are excellent for regular needs but fall short of feeder line needs out of Taft, Coalinga, Santa Barbara, Las Vegas, Mojave, and other cities, according to oilmen who use them most. An appeal will be made as a half millioin people are affected.

TAFT AND THE WESTSIDE will have a real park, golf course and all with real greens and fairways. Ten grand feet of pipe is being laid to it from Western Water Company's No. 5 well.

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For more information on how we can serve you, see your Santa Fe freight representative.

Santa Fe all the way

F. H. ROCKWELL, General Freight Traffic Manager
Chicago 4, Illinois

Santa Fe

OIL PRODUCERS especially sales departments will be interested to know who the new Kern County purchasing agent might be. A. W. Weaver, once with an well known oilwell supply company was known and spoke the oil language. No complaints were ever made. He treated all alike. The new one can no doubt take a page from his long record of service. Weaver retired after almost a decade of service.

TWENTY YEARS ago to the day before Lyman Wilbur's passing he had intimated conservation of oil. Interesting incident for oilwigs.

TEN YEARS before according to local reports Tom McManus had requested the chamber of commerce to ask the telephone company to give in to the requests of its striking telephone (Hello Girls) employees.

PHIL TOWNSEND HANNA of the Automobile Club Southern California would probably remember that about this time PAUL DERKUM joined the chamber of commerce. PHIL knew him as Daredevil Derkum for whom he was publicity agent barnstorming carnivals.

FAIRBANKS EXPLORATION COMPANY's find while mining for gold in Alaska, has encouraged Kern Explorers of various kinds to uncover mammoths here. While no frozen and intact flesh and hide parts are anticipated it is possible that greater specimens with help of new devices for the exploring will be revealed.

ONE RATHER IMPORTANT thing in Kern County. There seems to be a plethora of talk about the weather. Shortwave hams all over the world let alone country are hearing about dust storms and hot weather. Certainly those who could immigrate here or elsewhere as they choose will not choose Kern . . . or so they intimate in their requests for more information about the terrible weather. It seems some radiowigs or wags in this case, just don't know how old fashion or improper it is to so commonlyplace fall back on weather and taxes to fill in their missing "ADLIB". Such bad manners are now being recorded by even the oilwigs . . . Their complaints are being hereby recognized.

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DuPont Services...

are fitted to your needs

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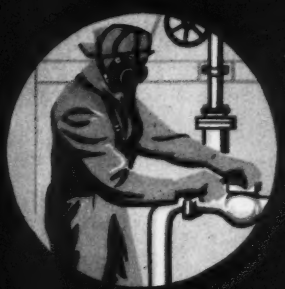
Whether it is a problem of determining lead susceptibility of stocks or of checking octane number on finished blends, there is a convenient District Laboratory to help. On safety or health problems associated with lead blending or handling, safety and medical personnel are always available to work with you.

These services—medical, safety, technical, and sales—stand ready at all times to assist in the solution of any problems involving the use of Du Pont TEL Compounds and other additives.

MEDICAL SERVICE



SAFETY SERVICE

DISTRICT LABORATORIES

SALES SERVICE

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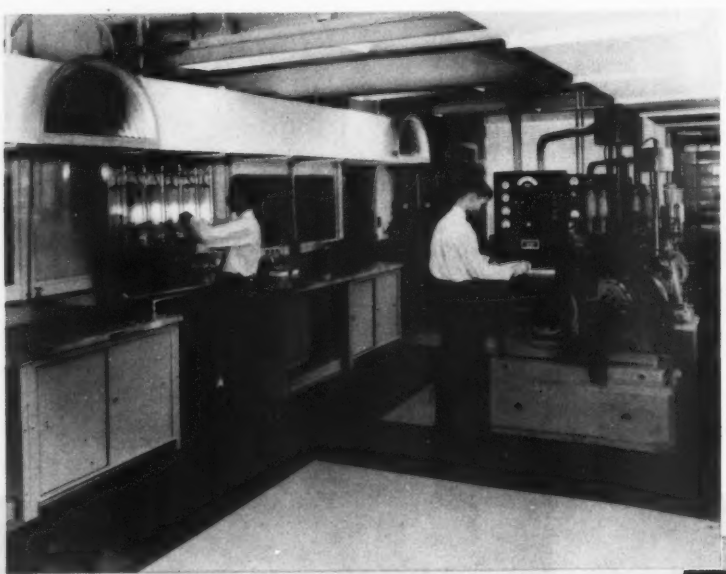
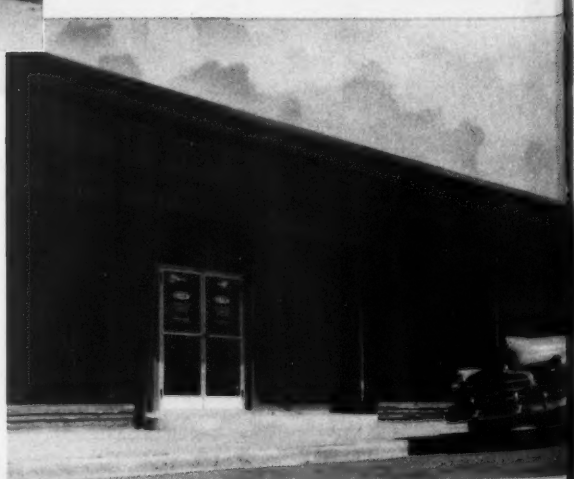
Better Things for Better Living . . . *Through Chemistry*

Du Pont

MEDICAL SERVICES cooperate with the refiner to maintain the highest degree of industrial hygiene possible among employees engaged in the handling of tetraethyl lead compounds. Periodic examination of all personnel working with TEL is only one part of the services which help in the establishment of safe operating procedures and the indoctrination of personnel in these approved methods.



DISTRICT LABORATORIES, five of which are conveniently located throughout the country, provide prompt, dependable laboratory tests. They are equipped and staffed with experienced men to furnish technical assistance in the application and use of Du Pont TEL compounds as well as other additives.



t *Provides These Services*
to Help You Produce Better Fuels...

SAFETY SERVICES are ready day and night to give prompt aid and advice on safety problems associated with the handling of TEL compounds or of fuels containing them. Safety service representatives are completely equipped with special instruments and tools and are available to refiners for use on safety problems.

DISTRICT OFFICES, located at Wilmington, Delaware; Chicago, Illinois; Tulsa, Oklahoma; Houston, Texas; and Los Angeles, California serve as centers through which the technical, safety and medical services are made available to you.

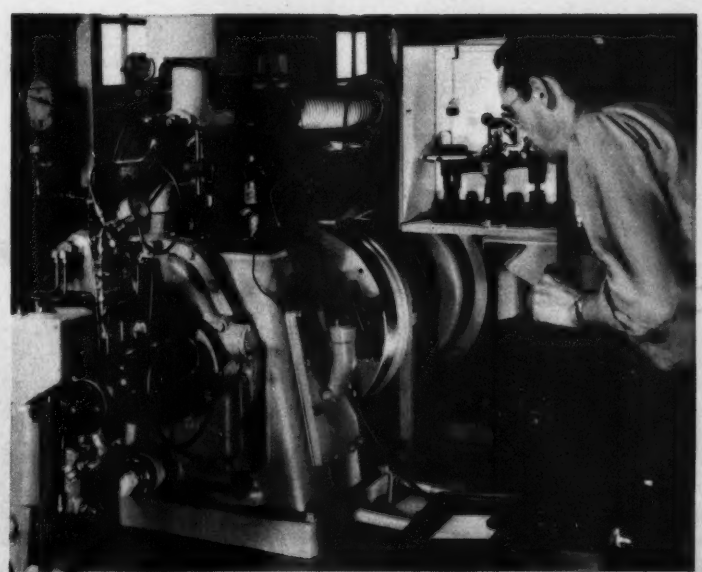
PLUS *a Long-Range Research Program to Help You Meet Changing Fuel Requirements*

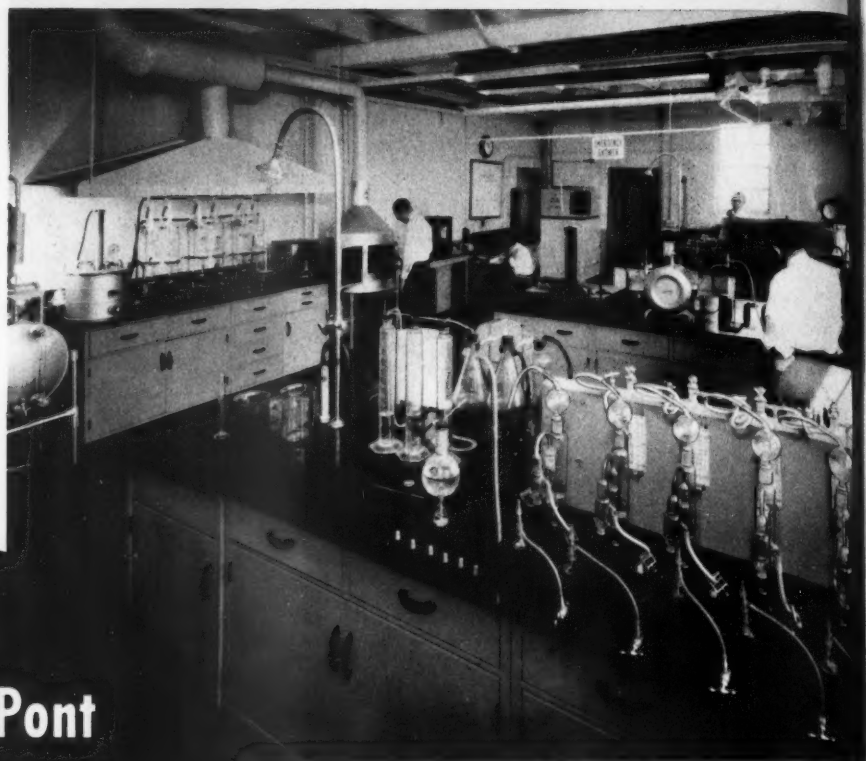
The development of new engines brings changes in fuel requirements. Likewise, changes in refining methods or sources of crude create differences in the basic characteristics of fuels. These and many additional factors affect the requirements placed on additives.

It is to help you meet these changing requirements that Du Pont is now engaged in a long-range program of Petroleum Chemicals research. This program is aimed at the improvement of present antiknock agents and other additives and the development of new ones to meet the higher performance standards which the future is sure to bring.

Supplementing the work of the Petroleum Chemicals Division laboratories is the Company-wide program of fundamental and applied chemical research, the results of which are constantly examined for application to Industry requirements.

Thus, Du Pont research is at work today to help you create better fuels—now and in the future.





Chemical section of a District Laboratory. Also equipped to make octane determinations, they render many helpful services in the use of all Du Pont additives.

Make Du Pont the Source for all of your Gasoline Additives

● Du Pont offers you one dependable source of supply for all of your gasoline additives. This complete line includes Gasoline Antioxidants, Metal Deactivator and Gasoline Dyes, as well as Tetraethyl Lead Compounds. These additives have been proved by many years use in the field. They are compatible with each other and are of uniform high quality. The Du Pont District Laboratory in your territory will be glad to assist you in evaluating these additives in your fuel and to make the proper recommendations.

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Tetraethyl Lead Compounds—Aviation Mix—Motor Mix

Metal Deactivator

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

Field Development

Los Angeles Basin

Aliso Canyon Test Starting

Los Angeles County oil news is accentuated by the start of a southeasterly extension by Carlton Beal in the Aliso Canyon field. The well, Mission No. 2, is on Sec. 25-3n-16w, southeast of Tide Water Associated's Fernando No. 13 producer.

Victorville Wildcat Scene

H. T. and G. G. Widney have staked location for a test well a mile and one-half northwest of the town of Victorville in Sec. 33-6n-4w, San Bernardino County.

Orange County Interest Area

Independent Exploration's widening field operations have extended to Placentia in Orange County where South Placentia Comm. No. 1 is about to spud on Sec. 7-4s-9w Two miles west of the town of Anaheim, Amerada Petroleum is ready to begin drilling Anaheim Comm. No. 48-8 on Sec. 8-4s-10w. Barnsdall Oil's Emery Trust No. 1, a deep test in Sec. 25-3s-11w at West Coyote, is drilling deeper below 9750 ft.

Weldon Canyon Venture Idle

Still standing idle at 4000 ft. is Richfield Oil's Watson No. 1 wildcat at Weldon Canyon in Sec. 13-3n-16w. What may have been encountered to present depth is a company secret.

Costa Mesa Test Center

Orange County oil excitement centers more or less at Costa Mesa where Thos. B. Blake is working on an interesting test well at the corner of Santa Ana and Wilson streets. The drill site is in Sec. 15-6s-10w on a community lease covering approximately 85 acres at the north end of the town of Costa Mesa. Costa Mesa in recent months has been the scene of several leasing transactions within and beyond the limits of the town in Twp. 6, Range 10. Standard of California has under lease about 1000 acres, mainly around and the Army Air Base property. Independent Exploration, Continental and Macoil also hold representative acreage in the area. Leasing activities so far appear to have been in a direction generally north of the town, but at last reports were shifting west toward the Santa Ana River.

Chino-Corona Well Pumping

Grayco Oil's Grayco No. 2 well in the Chino-Corona area of San Bernardino County is evidently putting out eight barrels an hour along with considerable gas. Total depth is 4100 feet in the well, which is on Sec. 13-3s-8w. Both the Grayco Oil Company and the Grayco

Hancock Oil Company's well No. 35 in the Signal Hill field. K. L. Kellogg and Sons drilling contractors. Rear row, left to right: J. C. Gregory, pipe racker; M. A. Hackler, derrick; W. N. Karher, driller. Front row, left to right: C. E. Jones, cathead; C. H. O'Neill, helper.

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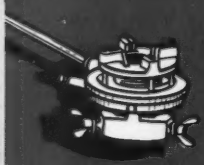
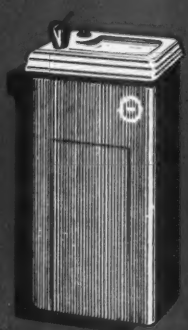


TOLEDO TOOLS

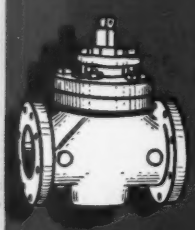
WALWORTH VALVES & FITTINGS



SUNROC WATER COOLERS

RIDGID PIPE CUTTERS

NATIONAL TU... BUTT WELD A... SEAMLESS P...



WALWORTH LUBRICATED PLUG VALVES

TAYLOR FORGE WELDING FITTINGS

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BLACK & DECKER ELECTRIC TOOLS

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BAKERSFIELD

Oil No. 2 organization have actively drilled in the area. The Grayco No. 2 pumper is sponsored by Grayco Oil No. 2 firm. The two companies are working toward a merger under the name of Grayco Oil Consolidated. Tide Water Associated, meanwhile, is rigging Abacherli No. 1 on Sec. 12-3s-8w. Camay Drilling Company has been assigned drilling contract.

Newhall-Placerita Well Good Producer

Shamrock Drilling Company, on its account, has added an excellent producing well in the Newhall-Placerita area. It is Bertoglio No. 1 on Sec. 31-4n-15w, which came in from 1886 ft. for an initial flow of 70 barrels an hour. Flow of 22 gravity oil was clean and through a 48/64-in. choke. Casing is set at 1695 ft. The company lease covers only one acre of ground. It is about a mile north of the bridge crossing Placerita Canyon and is surrounded by property held respectively by Rothschild Oil and Independent Exploration. Rothschild Oil's Cole Comm. No. 1 and Rassp Comm. No. 1 on the section have been completed at 1917 ft. and 1875 ft., respectively. Combined yield is 1000 barrels a day. The company's Placerita Comm. No. 2 at last reports was putting out 500 barrels a day from 1950 ft.

Inglewood Test Fishes

Drill collar and bit are being fished for in California Standard's LAI No. 4-3 on Sec. 20-2s-14w in the Inglewood area. Present depth of the well is 7315 ft. Shell Oil's Baldwin Hills No. 1 on Sec. 9-2s-14w at East Inglewood is down 12,592 ft. and repairing equipment.

West Newport Job Drilling

In the West Newport field, First National Finance Corporation is making hole at 3210 ft. with its Alford No. 4 on Sec. 8-16s-10w, Orange County.

Cerritos Channel Land Still Sinks

Subsidence of land north of the Cerritos channel has prompted General Petroleum to raise the pumping equipment supplying salt water for cooling at the company's Wilmington absorption plant. The equipment consists of an electric motor and two gas engine driven water pumps. They have been elevated a total of 12 ft. above the former level and currently are in active service.

Long Beach Adds Wells

Signal Oil Company has added Signal-Hancock-Morrill No. 1 on Sec. 24-4s-13w in the Long Beach area. Source of production is the De Soto zone, which rewarded the company with 216 barrels of 29.1 gravity oil a day from 10,228 ft. Cunningham & Transcal Drilling Company has finished Jacobson Comm. No. 1 and McKenzie No. 1 on Sec. 24-4s-14w. The former is pumping 55 barrels daily from 10,-

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Husky overall construction and simple operation make the Bowen Socket ideal for outside holds on the toughest fish. Yet this tool is readily released whenever required, even after hours of jarring.
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085, ft. and the latter 84 barrels from 10,370 ft. M. & S. Oil Company, R. B. Mitchell and Eugene M. Shidler, is starting No. 1 well on Sec. 19-4s-12w.

Ramona Well In

In the Ramona field, the Texas Company has finaled its Kern No. 31 on Sec. 7-4n-17w for 90 barrels of net 23.7 gravity oil a day from 3460 ft. The 7-in. pipe is set at 3413 ft.

Santa Fe Springs Project Redrills

Severns Drilling Company, contractor, is redrilling at 2998 ft. with Union Oil's Alexander Bell No. 2 on Sec. 6-3s-11w in the Santa Fe Springs field. St. Anthony Oil Corporation's Farwell No. 1 on Sec. 32-2s-11w is pumping an unestimated yield from 4300 ft. Casing is cemented at 4285 ft.

East Coyote Well Pumping

Madrick Petroleum's McMahon No. 1 on Sec. 17-3s-9w at East Coyote has been completed on the pump at 2712 ft. Conrad No. 2 on the section is drilling at 2150 ft.

Montebello Wells Begin

Two new drilling jobs are beginning work in the Montebello field. They are Kern Oil Company's Monterey No. 47 and Standard Oil's Baldwin No. 139 in Sec. 2-2s-14w.

West Newport Well Scheduled

With George C. Atha in charge, Commercial Oil Company is preparing to drill an interesting well on Sec. 17-6s-10w in the West Newport area. The project, on a 160-acre block, will be drilled by Dunlap & Graham, contractor. Location falls about a half mile southeast of D zone production.

A. D. Rushing and J. E. Faller, tool pushers of A. D. Rushing Drilling Co. on Richfield Oil Corp.'s well Homan No. 1 in the Cuyama Valley.

SEVERNS DRILLING CO.

OIL LEASES FOR DRILLING

OVER 2,000 acres oil land 4 cor. No. Ariz. Apache Co. Geological reports on 5 structures. J. M. Benedik, 130 E. Jefferson, L. A. Phone AT 15172. 7/5b

Newhall Try Digs

Drilling has reached 7320 ft. in Standard Oil's N. L. & F. No. 5-3 in Sec. 34-4n-16w at Newhall. Rothschild Oil is beginning Gulley No. 1 on Sec. 11-3n-16w.

Placerita Line Starts

General Petroleum has started construction on two miles of pipeline from the Placerita Canyon field to its main trunk over the Ridge route. The line will carry some 2000 barrels of crude oil a day, mainly contract oil from wells owned by Nelson-Phillips Oil Company. General has a number of producers in the field, chiefly on the Castruccio property.

Tar Creek Job Drills

Some 400 ft. south and 2400 ft. east from the northwest corner of Sec. 28-4n-19w in the Tar Creek area, Union Oil is drilling at 885 ft. with No. 45. No. 43 on the section is idle at 1160 ft.

Fillmore Test Digs

On Sec. 7-4n-19w in the Fillmore area, C. W. Colgrove's Goodenough No. 28-7 test is drilling ahead at 1860 ft. Contractor is Casner & Bentz.

Montalvo Well Works

At Montalvo in Ventura County, Standard of California's McGrath No. 13-9 on Sec. 30-2n-22w is making hole ahead below 7450 ft.

Coastal and Northern District

Santa Cruz Wildcat Quits

Efforts of Union to uncover new oil with its first exploratory well in the Beal Hill area of Santa Cruz County were unsuccessful. The well, Loma Prieta No. 1, drilled to a total depth of 1942 ft. Location, on Sec. 19-10s-1e, is seven miles northeast of the town of Santa Cruz. Approximately 10 miles northwesterly, D. D. Dunlap has several thousand acres blocked up. It may soon be the scene of a prospect job.

Monroe Swell Project Pumps

About eight miles northwest of King City in Monterey County, Texas Company's Beedy No. 1 wildcat on Sec. 19-19s-7e at Monroe Swell has been completed at 3300 ft. The well at last reports was pumping 30 barrels of net oil a day. In the San Lucas area, Humble Oil & Refining's J. J. Barbree No. 1 on Sec. 21-21s-8e is drilling and coring at 5480. Jergins Oil and North American are drilling USL North No. 2 on Sec. 8-22s-11e in the San Ardo area at 750 ft. The No. 1 was given up at an unproductive depth of 2332 ft.

Zaca Field Yield Shut In

Tide Water Associated, which recently completed its Davis No. 3 in the Zaca field for 75 barrels from 4195 ft. on Sec. 33-8n-31w, has shut in all of its heavy crude production there. Affected is some 4000 barrels of 8.5 gravity oil a day.

Pleasant Creek Well Gas Producer

Flowing initially at the rate of 9,900,000 cubic ft. of gas a day, Shell Oil has finished its Pleasant Creek Unit No. 4-1 well in Sec. 8-8n-1w, Yolo County. Natural Gas Corporation also shares interest in the well. The new gasser is a mile and one-half north of the company's Unit No. 3-1, the Pleasant Creek gas discovery well. It came in last December for 9,550,000 cubic ft. daily. Shell and Natural Gas Corporation are about to spud another drilling job on Sec. 18-8n-1w. The moniker is Pleasant Creek Unit No. 5-2.

Colusa County Wildcat Digging

Universal Consolidated is drilling at 2000 ft. with its Nieta Peterson No. 1 explorer on the southwest corner of Sec. 32-18n-4w in the Sites Anticline area, Colusa County. The well is five miles north of the company's earlier prospect job which was drilled more than a year ago to 5000 ft. without commercial success. Location of the present undertaking is also eight miles west of the town of Maxwell. Universal Consolidated has under lease in the area more than 4400 acres.

Santa Rosa Test Working

Drilling is going forward below 600 ft. in J. R. Pemberton's Tecolote No. 2 wildcat test on Sec. 12-2s-32w on Santa Rosa Island in the Santa Barbara channel. Surface pipe was cemented at 104 ft.

Somis Tests Drill Ahead

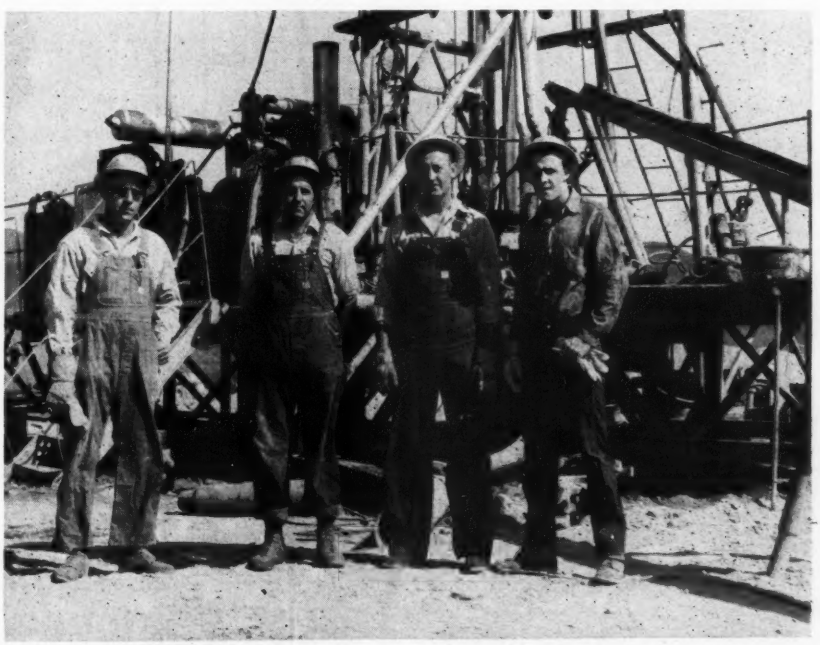
Drilling is continuing below 7450 ft. in General Petroleum's wildcat known as McBean No. 1 in the Somis area in Sec. 34-3n-20w. Humble Oil & Refining's Beryl-wood Inv. No. 1 in Sec. 5-2n-20w is digging at 8320 ft.

Casmalia Try Pumping Water

Union Oil's Tompkins No. 1 test on Sec. 29-9n-34w at Casmalia has been placed on the pump at a finishing depth of 4313 ft. Initial yield was about 280 barrels of water a day. The company has started Escolle No. A-6 and No. A-7 on Sec. 28-9n-34w in the Casmalia field.

Tepusquet Creek Wildcat Rigged

Rigged up is the Daniel Fisher, Operator, Rancho Viejo No. 1 exploratory venture at Tepusquet Creek on Sec. 33-10n-32w, Santa Barbara County. The Hollister Fisher No. 1 at Goleta on Sec. 3-4n-29w is still idle at a plugged depth of 735 ft. Total bottom is 1428 ft.



Gene Reid Drilling Co., contractors for Independent Exploration Co.'s Newhall-Royal Comm. No. 4, left to right: Herbert Thoene, Driller; W. D. Thoene, derrickman; Herb Fisher, lead tong; R. H. Riggins, cathead.

We All Agree

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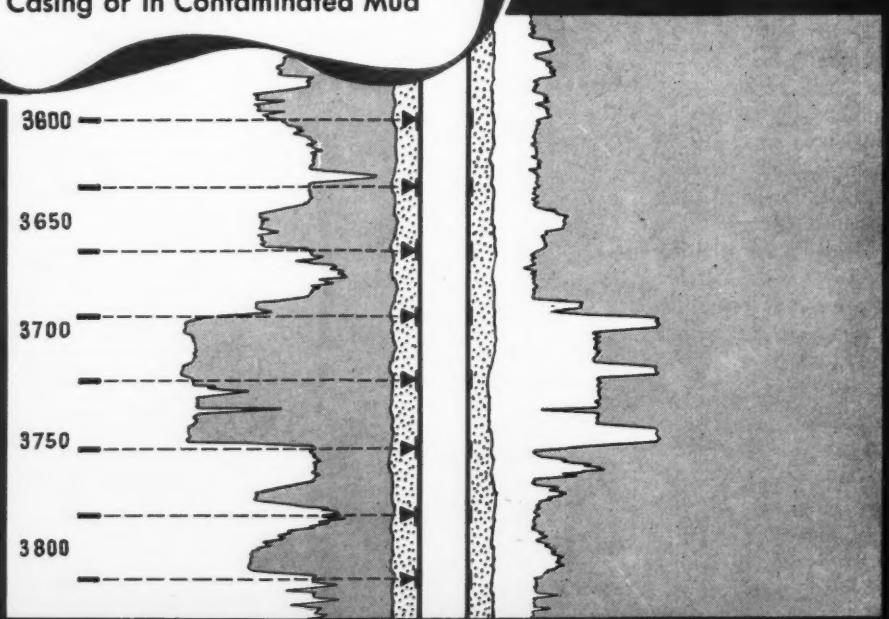
gives us the most complete Record of Well Formations—thru Casing or in Contaminated Mud



GAMMA RAY CURVE shows character and extent of all formations thru which the well passes!

COLLAR LOG at left ties formation to fixed, immovable reference points!

NEUTRON CURVE shows extent of all fluid in formations!

Get the Facts with LANE WELLS COMPANY Radioactivity Well Logging

LOS ANGELES • HOUSTON • OKLAHOMA CITY

Bardsdale Well Good

The other day Union Oil completed its Dryden No. 20 on Sec. 12-3n-20w in the Bardsdale field at 7233 ft. for 238 barrels of 31 gravity oil daily, cutting 22.4 per cent.

Shiells Canyon Leasing Deal

Texas Company has leased the west half of Calumet Oil Company's fee property in the Shiells Canyon area of the old Bardsdale field. Texaco is reported to have under consideration the drilling in the near future of wells to develop deeper production on the land.

Corning Try Digs

In the Corning area of Tehama County, Buttes Oilfields, Inc., is coring at 1620 ft. with its Corning Comm. No. 1 test on Sec. 1-24n-3w.

Lake County Wildcat Idle

At Kelseyville in Lake County, William T. McKenzie's Evelyn Awe No. 1 on Sec. 28-13n-9w is idle temporarily around 200 ft.

South Mountain Test Well Drills

Drilling shale below 3550 ft. is the last word on Kirk Oil's Taylor No. 1 at South Mountain in Sec. 14-3n-21w, Ventura County. At West Mountain, Los Nietos Company's C. & H. No. 10 on Sec. 23-3n-21w has been completed on the pump for a yield yet to be gauged. Total depth is 10,119 ft.

Simi Try Working

Ready to run casing in its Runkle No. 1 wildcat is Regent Oil Company. The well is in the Simi area on Sec. 14-2n-17w, Ventura County.

Huasna Try Digs

Western Gulf's interesting wildcat well in the Huasna area of San Luis Obispo County continues to drill steadily ahead below 2000 ft. The well, Porter No. 1, is on Sec. 13-32s-15e.

A. P. I. Petroleum Text Third Edition Released

Prepared and published by the American Petroleum Institute, the informative booklet "Petroleum—The Story of an American Industry" has recently appeared as a revised 3rd edition. The booklet was first published in 1930.

Completely re-written and much expanded, the new edition is intended to provide answers to many of the old and new questions regarding the origin, source, and uses of petroleum and its products, as well as to furnish factual information about the complex but highly efficient operations of the petroleum industry.

The book is further designed to tell, in simple terms, of the operations and services involved in the recovery and transformation of petroleum into the many forms in which it serves private and commercial uses.

President Truman has made known that he is going to continue to fight for the repeal of the Taft-Hartley Act as hard as he can. He thus commented at a news conference after the Senate had passed a bill designed by Senator Taft of Ohio, which continues basic provisions of the Taft-Hartley law.

Interior Secretary Krug has asked the oil industry how much productive capacity it should have on hand "in the event of an emergency." The Secretary also requested the industry through the National Petroleum Council for an opinion on the need of petroleum imports. Walter S. Hallanan, council chairman, revealed Krug asked that a committee be set up to make recommendations on the two related questions. Hallanan referred the request to the council's agenda committee for a report at the next council meeting next July 28.

Senator Robert F. Wagner, 72, has resigned the Senate seat he held for 22 years. The author of the Wagner Labor Relations Act has been in ill health for several years. His resignation makes mandatory a special election next November 8 to fill the last year of the term. New York Republican Governor Thomas E. Dewey can name a successor to serve until then. The Governor ruled himself out as a prospective choice for the Senate appointment. He said that he expected to make an interim appointment of a Senator in the near future.

Otto Mauthe, widely known public relations director of Southern California Gas Company and Southern Counties Gas Company, is critically ill at St. Luke's Hospital in Pasadena. He suffered a cerebral hemorrhage.

In the Paloma Field, Loffland Bros. Co., contractors for Western Gulf Oil Co.'s well KCL 74-30. Left to right: Primo Cavallero, lead tong; Riley Brogdon, derrickman; H. A. Arnold, cathead; Donald Perryman, pipe racker; Leo Hughes, driller.

San Joaquin Valley

Paloma Test Drills Deeper

On the south flank of the expansive Paloma field, the Humble Oil & Refining Company KCL No. 54-9, Sec. 9-32s-26e, is drilling steadily on down at 10,200 ft. The Paloma field is an eight-mile long anticline, but to date has only proved commercial production in the northern part.

Pioneer Job Digs

Exploratory drilling has reached 9798 ft. in the Shell Oil Company KCL No. A-37-4 on Sec. 4-30s-25e in the Pioneer area, Kern County. In the Ten Section field, the company is making progress with the drill at 5762 ft. in KCL No. 71-25 in Sec. 25-30s-25e.

Turk Anticline Wildcat Rigging

Continental Oil Company is nearing the spudding stage with its S. P. No. 1 wildcat on the Turk Anticline in Sec. 25-17s-15e, Fresno County. It is about a mile and one-half northwest of Shell Oil Company's Port Costa No. 48-20, which drilled 10 years ago to an unproductive depth of 10,710 ft. Humble Oil's S.P.R.R. No. 1 test on Sec. 25-18s-16e is an abandonment at 11,415 ft.

Midway-Sunset Well On Pump

General Petroleum's Fried No. 10 at Midway-Sunset, Sec. 25-12n-24w, has been completed on the pump for an initial yield of oil from 3187 ft. Casing is cemented at 2935 ft. in the well, which is not far from the old Lakeview gusher, which poured oil over Maricopa Flats during 1910. Drill site is two miles from Maricopa. Western Petroleum's No. 53-27 test, Sec. 27-32s-23e, has been abandoned at 5070 ft.

Pleito Hills Wildcat Digs

In the Pleito Hills of Kern County, Richfield Oil is pushing an inquisitive drill at 1846 ft. in its Pleito Hills wildcat, Sec. 6-10n-20w. Location is on Highway 99 west of the Grapevine.

Amerada Nose Test Working

In Fresno County in the Amerada Nose area, Barnsdall Oil Company's J.M.N.R. No. 1 wildcat, Sec. 28-19s-16e is drilling on down at 4567 ft.

Kreyenhagen Try Listed

The banner of Elmer C. von Glahn flies over Oceanside No. 4, a new Fresno County wildcat well on Sec. 33-22s-16e at Kreyenhagen Hills. On Monocline Ridge, Western Gulf's Lillis No. 84-4 on Sec. 4-17s-14e has quit. Total bottom is 5469 ft., and redrilled depth 5005 ft.

Mojave Try Quits

Having explored to a depth approximating 1950 ft., without encouragement, Western Research Laboratory, Inc., has pulled out of its Crookshank No. A-1 wildcat in the Mojave area, Sec. 13-30s-37e, Kern County.

Raisin City Well Flowing

Flowing to tank at the rate of 200 barrels of 19.3 gravity oil daily through a 10/64-in. bean, Mission Oil Company has added well No. 3-19 in the Raisin City field. The C. W. Colgrove and Coast Exploration Company Gresser No. 1 on Sec. 14-15s-17e is a duster to some 5300 ft.

Fresno Slough Wildcat Coring

At Fresno Slough in Kings County, Shell Oil is coring below 8250 ft. with its Fresno Slough No. 1-1 exploratory hole on Sec. 1-18s-19e. Nothing of interest has been reported to present level.

Poso Creek Try Slated

Starting at Poso Creek is a new test undertaken by Terminal Drilling Company in Sec. 36-27s-27e. It is called Terminal No. 36-2 well.

Creston Try On Calendar

Texas Company is rigging its O'Donovan No. 2 wiidcat well, 330

Loffland Bros. Co., contractors for Western Gulf Oil Co.'s well KCL 74-30 in the Paloma Field. Left to right: William Hartzell, pipe racker; T. O. Ward, cathead; T. J. McKinney, lead tong; Garland Newberry, driller; Richard Harvey, derrickman.

ft. south and 760 ft. east from the northwest corner of Sec. 21-27s-14e, San Luis Obispo County. Drilling will be carried on four miles northeast of the town of Creston on the road to Shandon.

Carrizo Plains Interest Area

Union Oil is ready to spud its Wreden No. 4 in Sec. 33-28s-17e in the Carrizo Plains area of San Luis Obispo County. Location is staked for No. 5 on the section. The company's No. 3 was abandoned at 3200 ft. in Sec. 4-29s-16e. Texas Company's Grayson-Owen No. 1 on Sec. 14-31s-18e is drilling and coring at 2245 ft. The Gene Reid-Independent Exploration-Universal Consolidated combination is rigging heavier equipment to its Temblor-Rexroth No. 67-36 on Sec. 36-28s-18e, Kern County. The well will be carried deeper from 3344 ft. It is said to look interesting as far as it has gone. The operating group, meantime, is making ready to drill its Producers No. 53-36 on the section. Land under lease extends along the west border of the Kern County and the east fringe of San Luis Obispo County.

Calder Test Progressing

Sturdevant No. 41-26, sponsored by General Petroleum in the Calder area in Sec. 26-29s-25e, is slugging away at 8546 ft. KCL-Calder No. 74-24 on Sec. 24-29s-25e is rigged.

Devils Den Wells Listed

Signal Oil & Gas Company has two drilling jobs programmed for ground northwest of the pool recently uncovered by Honolulu Oil Corporation in the Devils Den area, Kern County. Signal-Jack No. 36-1 will drill in Sec. 36-24s-17e and Signal Orchard No. 4-1 in Sec. 4-25s-18e.

Tejon Try Drilling

South and east of the company's abandoned Tejon Hills No. 1, Stansbury, Inc., has abandoned Tejon Hills No. 2 on Sec. 31-11n-18w in the Tejon area at 1387 ft. The No. 1 well was abandoned largely because the Transition oil sand carried water in excessive amount. A shut off was foreseen as cementing off so much zone that completion of a commercial well would have been a practical impossibility. The well bottomed at 1252 ft. Reserve Oil & Gas Company is understood to be substantially interested in the lease of several hundred acres. Ewan Oil Company's Ewan No. 4 is drilling at 745 ft. in Sec. 2-11n-18w. F. A. Miller's Miller-Tejon No. 28-11 in Sec. 11-10n-19w and Morton & Sons' Macoil No. 1 in Sec. 4-11n-18w have been abandoned. The former quit in gray sand at 2428 ft. and the latter in boulders at 1451 ft. B. C. Mackey's Swett Barkley No. 1 in Sec. 34-12n-18w is drilling below 950 ft. His Tejon Creek No. 1 is a location in Sec. 31-32s-30e. Rogers No. 1 in Sec. 27-12n-18w has started on preliminary work. In Sec. 14-11n-18w, R. B. and Essie L. Jackson have abandoned at 954 ft. Kosanke No. 1. Steele Petroleum's Roco No. 7 in Sec. 31-11n-18w is drilling at 451 ft.

Cuyama Valley Holds Attention

Approximately 15 miles southeast of South Cuyama production, Bolsa Chica Oil Corporation is drilling at 5200 ft. with its Hickey No. 1 on Sec. 30-9n-24w. Pacific Supply Corporation also holds interest in the test. Richfield Oil's new Hibberd No. 22-36 well in Sec. 36-10n-27w is producing 354 barrels a day from 4730 ft. Superior Oil's Heath No. 17-25 in Sec. 25-10n-27w is putting out 700 barrels from 4640 ft. Richfield's Perkins No. 17-31 on Sec. 31-10n-26w was completed at a depth of 4360 ft. flowing an estimated 5000 bbls. daily. It is interesting to note how many wells and leases at Cuyama with names initiated by the letter "H" have been successful. They include Norris Oil's Hadley No. 1, the Homan, Hibberd and Heath producing properties and the Heller lease. Mildred Holmes is understood a part owner in the Heath lease and the greater part of the land leased by Richfield apparently was obtained through J. G. and A. C. Herren. Bolsa Chica's present undertaking is on the Hickey property and the Russell Ranch is owned by "Hub" Russell. A. H. Heller, owner of the Heller lease and major participant in production in all Cuyama Valley sectors, forecast a rosy future for the new South Cuyama area. "The South Cuyama field," he said, "with more than 400 ft. of oil sand, has only about half

In the Paloma Field, Loffland Bros., drilling contractor for Western Gulf Oil Co.'s KCL 74-30, left to right: J. Gossett, fireman; M. T. Gaylor, pipe racker; Gene Perry, lead tong; M. E. Long, cathead; Dempsey Moore, derrickman; C. K. Hester, driller.

the dip present in the North Cuyama field, where with 150 ft. of sand, there is a 500-ft. closure. On the north flank of the Buena Vista Hills, with an average thickness of 25 ft. of sand, production extends down dip for almost two miles with the edge wells about 3000 ft. deeper than those at the top of the structure. One can, therefore, readily visualize the field as having a width of at least two miles, if not more."

Cymric Try Digs

Drilling is continuing the even tenor of its way around 1000 ft. in Pacific Western Oil's Government No. 18-75 on Sec. 18-29s-22e in the Cymric area, Kern County.

Blackwells Test Drill

Two test wells are drilling deeper at Blackwells Corner under the banner of Superior Oil Company. The company's O.L.C. No. 4 in Sec. 26-26s-19e is making hole at 10,150 ft. O.L.C. No. 5 in Sec. 16-26s-19e is boring at 5731 ft.

Edison Well Successful

Macson Oil Company has given the final touch to Jeppi No. 1 at Edison on Sec. 21-30s-29e. Yield from 3970 ft. is at the rate of 125 barrels of 19 gravity oil daily. Interval open to production extends from 3320 ft. to bottom.

Lindsay Hills Wildcat Works

Standard of California's important Van Sicklin No. 45 on Sec. 36-27s-21e in the Lindsay Hills in Kern County is ready to inaugurate completion attempts at 14,587 ft. The 4½-in. casing is cemented at 13,703 ft. What the project shows definitely is a company secret.

Don Rollins, Ducommun Metals and Supply, has been elected vice president of Systems and Procedures Association of America. Harold Campbell, General Petroleum, was named secretary and J. U. Witt, Union Oil, was voted to the treasurers' post.

Universal Develops New Process

A new process which is likely to prove extremely valuable both to gas companies and to the petrochemical industry, has been developed in the laboratories of Universal Oil Products Company, Chicago, and is ready for commercialization.

For gas companies, the new process, which has been named Autothermic Cracking, will reform propane or other volatile hydrocarbons in admixture with air to make supplementary gas to meet emergency peak load demands for home heating on exceptionally severe winter days.

For petrochemical manufacturers it will crack ethane, or other economically volatile stock, converting it to ethylene, which is one of the most useful and versatile of aliphatic source chemicals, being the starting material for the manufacture of alcohol, antifreeze mixtures and many other products.

Supplying sufficient gas to meet sudden emergency peak load demands for home heating, and at the same time maintaining interchangeability in burning characteristics in the supplementary gas, is the most formidable technological problem confronting gas companies.

Pipe lines and gas plants are designed to meet calculated normal base loads; to construct and maintain sufficient over-capacity in pipe lines and conventional manufactured gas plants to meet the unpredictable emergencies which occur only a few days in the year when the temperature drops near the zero mark, is quite impractical.

Two alternative methods to meet such emergencies are: Storage of gas close to central distribution points, or manufacture of gas from stored raw material. Each of these has its place in certain cases and both are being further investigated.

The Autothermic process falls in the second category. It is extremely flexible with respect to throughput, pressures of operation and raw material. It is these characteristics, combined with quick starting and low capital cost, that make it particularly adapted to the job of meeting the unpredictable emergencies.

Autothermic cracking consists in reforming propane, naphtha, natural gasoline or other volatile hydrocarbons in admixture with air to make supplementary gas approaching the normal sendout in quality. By varying the proportions of air to hydrocarbon, gases of a wide range of calorific value can be produced.

R. M. Deanesly, a Universal research chemical engineer, started with the basic idea of conducting cracking reactions by admixing air with the charge stock rather than by external heating, and has developed techniques resulting in a compact, low cost gasification process of exceptional simplicity, in which dilution of the gas with nitrogen is reduced to a minimum, thus greatly improving the quality of the gas.

The mechanism of the process consists of preheating separately the air and hydrocarbon streams, mixing while hot, and reacting in a small insulated vessel. The hydrocarbon-air mixture is rapidly converted to reformed gas and nitrogen. The hot gases leaving the reactor are cooled by heat exchange. Heat losses are almost negligible, the overall thermal efficiency of the process being better than 98%.

Essentially, the same procedure can be applied to the production of ethylene as has been described for gas making. The preferred raw material for either operation depends on the location of the plant, and other factors.

The Autothermic process has been tested and proved in pilot plant operations producing 1000-2000 cubic feet of gas per hour, and thorough burner tests on the gas have been conducted by engineers of large gas companies.

Propane-air plants now being used by gas companies to produce peak load gas can be readily converted to the Autothermic process.

The versatility of the process suggests the interesting possibility that an Autothermic plant might be profitably employed full time by a gas company or a chemical manufacturer, producing ethylene during the greater part of the year but being instantly convertible to gas production in emergency.

Reese H. Taylor, president of Union Oil, during recent months has been spending the week ends at his summer home, "Sandyland," near Carpinteria.

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

GENERAL

Ohio Oil Co. took the lid off wildcatting in western Nebraska with a surprise strike of light green, 35 gravity oil at the No. 1 Mary E. Egging in section 11-15n-49w near Sidney. First rumors of oil shows in the shallow venture (4429 feet) sent lease brokers for major companies scurrying to the scene. Within four weeks virtually all land within a 20 to 30 mile radius of Sidney was under lease.

Harold H. Healey, Ohio's division manager, reported that the most recent pump test made 121 barrels in seven hours, and averaged 15 barrels per hour during the last two hours. Prospects are the well will pump from 400 to 500 barrels daily when cleaned up. Ohio has already rigged up for a second test.

The venture was drilled on a seismograph prospect. Ohio originally leased 170,000 acres, and has since picked up more leases. The company still has a seismograph crew working in the area. Other firms have employed crews working throughout the Julesburg basin of southwestern Nebraska and northeastern Colorado.

Meanwhile the "deep one" at Pacific Creek, in southwestern Wyoming, was bottomed at the record total depth of 20,521 feet—a record which may stand for some years. The Superior Oil Co. did not say whether drilling would be resumed, but reports from Rock Springs indicated the operator plans to test back up the hole. Rumors of oil and gas shows in the venture have cropped up with regularity, but company officials have maintained strict silence. Seven-inch casing was landed at 19,764 feet. It is considered probable that several potential producing sands were encountered since the top of the Mesa Verde was logged at 8,434 feet. No lower formation tops have been disclosed.

A better market for Rocky Mountain crude was envisioned with the announcement of plans by Standard of California to build a products pipeline from its Salt Lake City refinery to Pasco, Wash., near Spokane, at an estimated cost of $6,500,000. P. L. Fahrney, vice president of the company, stated the pipeline would be started immediately because the firm "could wait no longer in the hope of lower freight rates on oil." The Interstate Commerce Commission had twice rejected a request from the Union Pacific railroad for lower rates. A reduction of about 50 cents a barrel was sought.

It is estimated the refined products can be transported from Salt Lake to Spokane, via pipeline, at a cost of about 36½ cents a barrel, compared to the rail freight of 93 cents a barrel. Plans call for an eight-inch line from Standard's Salt Lake refinery to Boise, Idaho, and a 6-inch line from there to Pasco.

The products pipeline will assure a good market for Rangely, Colo., crude and the growing production of Utah's Ashley Creek field, as well as other Utah fields coming into the picture. It will place Rocky Mountain crude in a favorable marketing situation in the Pacific Northwest, and may have a bearing on possible future competition from Canadian crude in the region.

Plans for another pipeline to increase the flow of natural gas from the Church Buttes field of southwestern Wyoming to the Salt Lake valley of Utah were also announced. The ICC approved Mountain Fuel's application for a 20-inch line from Coalsville, Utah, to Salt Lake, which will parallel an existing 16-inch line. The new gas line will cost an estimated $1,750,000.

News of the new pipeline confirms the existence of vast natural gas reserves at Church Buttes, which began producing only last December. If these reserves prove ample, and if other gas reserves are proven in Wyoming's Green River Basin, a pipeline may eventually be built to San Francisco.

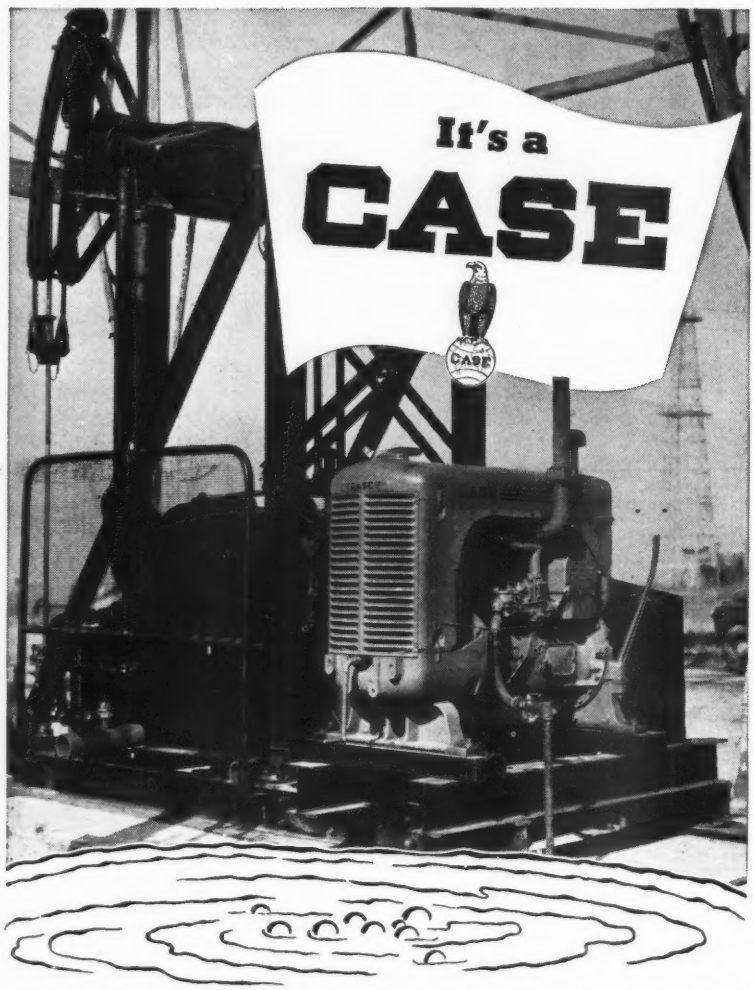
WYOMING

Continental Oil Co. added a new pay sand to its Sussex field north of Salt Creek when Unit Well No. 4 swabbed at the rate of 168 barrels a day from perforations opposite the Shannon sand, from 4530-4568 feet. This was the first Shannon producer in the field, but failed to find oil in the deeper Lakota sand productive in three other wells.

The field was discovered in July, 1948, when the No. 1 Unit well was completed for 241 barrels a day potential thru a quarter-inch choke. Continental owns a total of 12,621 acres in the Sussex area in a unit block of 13,376 acres.

Several deep ventures in Wyoming were nearing their objectives by the end of June. At Moxa, in southwestern Wyoming, Union Oil Co., Texas and others were coring for the contact point in the Dakota sandstone below 11,738 feet. This important wildcat is located north of Mountain Fuel Co.'s Church Buttes unit, which produces natural gas from the Dakota sand near the 13,000 foot level.

Amerada Petroleum Corp. was



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drilling below 3,000 feet at the Nitchie Gulch unit, located between the Baxter Basin fields and Superior's Pacific Creek wildcat. An 8,500 foot Sundance test is projected.

Amerada's Smith Cut venture in Johnson county was drilling below 11,700 feet and nearing its objective in the Frontier formation. It ranks as the most important wildcat in the Powder River Basin this year.

Shell Oil Co. recovered water on two drill stem tests in the deep Clear Creek wildcat in Sheridan county. The well was drilled to a total depth of 12,215 feet in the Cambrian zone, then plugged back to 11,677 feet, where a drill stem test in the Madison made 8,000 feet of fresh water. Another test further up the hole in the Minnelusa sand of Pennsylvanian age made 674 feet of muddy water, with no shows.

Pure Oil Co. also scored a disappointment in its third well in the West Poison Spider field, Natrona county, where it brought in the world's deepest producer at 14,309 feet a year ago. The company suspended its No. 3 Unit at 10,128 feet after testing water in the Mesa Verde formation, productive in the second well. Later on, the well may be deepened to the Frontier sand around 14,000 feet.

Meanwhile, Pure spudded its new wildcat in the Badwater unit in section 35-39n-89w, northwestern Natrona county. This test is located about 35 miles northwest of the West Poison Spider field and is east of the Lysite area, where Sinclair drilled a 12,610-foot dry hole two years ago.

British-American's Whiskey Peak wildcat in section 33-27n-91w, Fremont county, is drilling below 8800 feet in Cody shale and may go as deep as 14,000 feet. It is located northwest of the prolific Lost Soldier field.

UTAH

The big news in Utah was Carter Oil Co.'s opening of a new field in the Uinta Basin, where the company drilled four costly dry holes last year. A 17-hour test of the No. 1 Ute-Tribal in section 21-1s-1e, Roosevelt area, produced 1160 barrels of oil, or at a daily rate of 1600

barrels. The oil was struck at 9351 feet in a Tertiary sand and had a gravity test of 31.7. The test was made after swabbing for two days, and acidizing.

The new Utah strike awakened interest in Tertiary possibilities in the western part of the Uinta basin. Carter, which has accomplished intensive geological and geophysical work throughout the region, has blocked around one million acres of fee lands. Other lease interests in the area are held by Stanolind, the California Co., Texas, Sinclair Oil and Gas Co., General Petroleum, Phillips and others.

The Roosevelt wildcat was drilled on lands sold jointly to Carter and Stanolind at the Uinta and Ouray Indian sale held at Fort Duchesne, Utah, over a year ago. A total of $67,500 was paid by the companies for about 4,085 acres of tribal lands in the area. It was reported from Duchesne that the tribal council may offer additional lands in the general Roosevelt area.

Wildcatting activity is on the increase in northeastern Utah. H. D. Moore of Lusk, Wyo., and others were reported to be moving in a rig for a test three miles east of the Ashley Valley field in Uinta county, in section 18-5s-23e. Just two miles to the southeast, the Utah-Vernal Oil Co., is drilling a wildcat test on a separate high from the Ashley Valley field. North of Ashley Valley, Baird & Robins' wildcat reached a depth of 5400 feet, and stopped for a fishing job.

Tide Water Associated and Mohawk Oil Co. of California were reported getting ready to drill a 4,000 foot wildcat in their joint block 10 miles northwest of the town of Vernal, and 20 miles northwest of Ashley Valley field. Tentative location of the well was listed as section 7-3s-20e.

In central Utah, Mountain States Exploration Co. of Casper has farmed out 15,000 acres from Carter Oil Co., for a shallow wildcat test in San Pete county. The well will be drilled around 2,000 feet in an area where there has been no oil activity to date.

Other important Utah tests include Pacific Western and Equity's wildcat at Thompson, in Grand county, now drilling below 11,575 feet in the Pennsylvanian, and Tide Water's Big Flat test, also in Grand county, last reported below 7740 feet. Slight shows of oil were found in the Paradox Salt around 4625 feet in the latter test, but nothing has been reported since that time.

MONTANA

British-American failed to get production from the Phosphoria zone in its Clark Fork wildcat in section 26-9s-22e, Carbon county, despite favorable tests in the formation on the way down to deeper beds. The well was drilled to a total depth of 9446 in the Madison, then plugged back to the Phosphoria. A drill stem test from 7550-7564 feet recovered gas at the rate of 620,000 cubic feet a day, with 105 feet of mud, heavily cut with condensate. Further tests will be made in the higher Dakota and Lakota zones.

Interest also centers on two Devonian wildcats drilling north of Great Falls to test the possibility of production similar to that found in the province of Alberta, Canada. General Petroleum's test at Agawam found some shows in the Madison, and was last reported fishing around 2882 feet. British-American's venture at Dutton Creek was drilling in the Devonian at 3464 feet, and had about 200 feet to go in that formation. A show of heavy black oil was found in a thin sand streak in the top of the Devonian, but the operator pinned on the base of the section.

A new lease play was reported in south central Montana, where federal land applications have been heavy during the past few weeks. It was reported from Billings that Frank W. Gower, Denver lease man, had recently acquired 150,000 acres of fee land and federal land options throughout eastern Stillwater and northern Carbon counties. It was rumored, but not confirmed, that Superior Oil Co., is interested in the area. New areas of exploratory leasing and geophysical work have cropped up throughout the entire state in the last eight months.

Phillips Petroleum is expected to announce a location soon for a 3000 foot granite test in its Carrot Basin unit in Gallatin county, located in twp. 9s-3e. The company unitized a block of 6,200 acres following surface geological work last year. It lies just west of Yellowstone National Park, in an area untouched by drilling. Drilling has been delayed by the rough terrain, necessitating costly road-building.

WESTERN CANADA

A "pipeline derby," in which seven companies are vying for permission to construct pipeline outlets for western Canada, holds the spotlight of interest in the province of Alberta. A special session of the Alberta legislature has been called for July 4 to consider a policy on the exportation of natural gas.

Three projects are on the boards for the Vancouver market, and two follow almost identical routes thru the United States.

Westcoast Transmission Co., wants to build a natural gas line to Vancouver, thence south to Seattle, at an estimated cost ranging from fifty to one hundred million dollars.

Alberta Natural Gas Co., plans a line thru Crows' Nest Pass to southeastern British Columbia, Montana or Idaho, west to Spokane and Seattle, and north again to Vancouver. This project is also estimated to cost 100 million.

Western Pipelines Co. plans a line eastward to Winnipeg, with branches supplying other cities and towns, at a cost of around 50 million.

Interprovincial Pipeline Co. (sponsored by Imperial Oil) has already started laying a pipeline from Edmonton to Regina at an estimated cost of 40 million. It is expected to be in operation by the end of next year. An extension of this line, now under consideration, would take oil from Regina to the head of the lakes, probably via Winnipeg, across North Dakota and Minnesota, placing Alberta crude in Eastern Canada and U. S. markets.

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British-American, Imperial, Shell and McColl are partners in a plan to build a 275-mile pipeline from Portland, Me., to Montreal, at a cost of around 15 million dollars. Most of Eastern Canada's imports enter the dominion thru Portland.

Prairie Pipe Lines, Ltd., plans a gas line from Calgary west to Blairmore, thru the Crows' Nest, to a point near Kingsgate, B. C., into the states, with the terminus at Vancouver. It, too, would cost 100 million.

Imperial Oil announced it will pay $2.93 a barrel for crude oil from the Golden Spike field. The price change took effective the first of June. At the same time, Imperial increased prices for Joseph Lake crude by 15½ cents a barrel to $3 a barrel. The only producing well in the field is Superior No. 1. Imperial owns a half interest in the 9,000 acre area.

An open flow potential of 3,000 barrels daily from the D2 and D3 zones, on dual completion, was reported for Canadian Gulf's Ellis well at Stettler. The operator ran five-inch liner to total depth, 5385 feet, after perforating from 5330-5340 with a Halliburton gun.

A new record for the oil industry was scored in the province of Alberta in March, the conservation board reported. For the first time in history, revenue from the sale of crude oil and natural gas in the province passed the $5,000,000 mark for one month. March revenue was $5,027,000, averaging $162,000 daily. This compared with only $2,500,000 in March a year ago.

Production of crude oil, amounting to 4,447,439 barrels, was also nearly double the March, 1948 figure.

The Conservation Board also reported the production figure for the province for the week ending May 31 at nearly 50,000 barrels, compared to only about 11,000 barrels for the corresponding week in 1948.

Leduc led all provincial fields with 24,654 barrels for the week ending May 31. Redwater was second with 10,427, followed by Turner Valley, 10,455; Lloydminster, 1,578; and other fields, 1,574. A total of 12 new operating wells were brought in during the week, bringing the grand total for the province to 793. This compares with a total of 476 operating wells a year ago May 31.

The Shell Co., staged a comeback in western Canada after an absence of more than two years by acquiring 399,000 acres of crown reserves in the northwest part of Alberta. The company is establishing headquarters in Calgary, and plans exploration in the Peace River district.

During the first week in June, 13 oil and exploration firms shared in the issuance of 912,370 acres of oil and gas reservations in the province of Alberta.

Rio Vista Oil Co., took the largest acreage, a total of 281,000 acres.

Interest in oil development in western Canada led the University of Alberta to announce a degree course in petroleum engineering.

The course, first of its kind to be offered by a Canadian college, will open this fall. J. Grant Spratt, second vice president of the Western Canada Petroleum association, said a $1,000 scholarship in the new course has been established by the Calgary Herald.

Amerada Petroleum Corp. set a new record for payment of oil land acreage in Alberta in June when it paid the provincial government a total of $3,232,320 for 640 acres of oil rights in section 16-57-21w in the Redwater field. The holding is between the fully proven section 15 to the east, for which Royalite Oil paid over $3,000,000 and on which 15 producing wells have been completed, and the Western Minerals section 17 to the west, where four wells are producing.

Six U. S. firms have entered into plans for the exploration and development of 9,000,000 acres of potential oil land in Saskatchewan, it was announced by Resources Minister J. H. Brockelbank of Saskatchewan.

Companies taking part in the huge oil deal include Tide Water Associated, Atlantic Refining, Honolulu Oil, Seaboard Oil, Barnsdall and Columbia Carbon.

Executives of the companies have been discussing the development program with provincial officials. The acreage covered by the permits extends west from Saskatoon to Biggar, and south from Swift Current to Lake Johnston. A second block is situated in the Touchwood Hills area, and a third extends from the Qu'Appelle valley south to Carlyle and east to the Manitoba border.

The biggest producer in the Redwater field was brought in by the independents, Pacific, Sunray, Atlantic and Calvan Pete, when P. A. S. C. No. 2 well flowed 120 barrels an hour thru 2-inch tubing from the Devonian. The No. 1 P. A. S. C. well was completed at 3,255 feet for 70 bbls. an hour, and has been on production since the first of June.

PERSONAL

D. J. Griffin, division land man for the Ohio Oil Co., at Casper, has been transferred to Calgary, where he will supervise operations for the company in western Canada.

Richard J. Heider has been transferred by Sinclair Oil and Gas Co., from the Denver office to Billings, where he will scout the Montana district.

The J. M. Huber Corp., has transferred Jack Dempsey to Minot, N. D., as scout for the company.

J. F. Hornbeck, well-known lease broker in the Rocky Mountain area, has moved from Casper to Salt Lake City.

The Schlumberger Well Surveying Corp., has opened a new office and garage building in Newcastle, according to E. F. Stratton, area manager. W. L. Paine is in charge of the new station, and R. E. Jones is field engineer.

The Sunray Oil Corp. has opened new offices in Denver for the Rocky Mountain division. C. W. Sternberg is in charge.

Charles Crowley has been made Montana district scout for Ohio Oil Co., and will be a member of the new Lewistown, Mont., scout check.

Offices of the Pueblo federal land office have been moved to Denver for consolidation with the Denver district land office. All federal land activities for the state will be handled from the Denver office, where Mrs. Eudochia Bell Smith is in charge. Lloyd T. Morgan, Pueblo manager, was made assistant at Denver.

The bureau also announced that the Las Cruces, N. M. office will be merged with the main New Mexico office at Santa Fe, effective July 1.

There have been rumors of combining land offices in Wyoming—either at Casper or Cheyenne—but there is no confirmation of this report.

COLORADO

An extensive lease play throughout the northeastern part of Colorado followed Ohio Oil Co.'s discovery of oil across the line in Cheyenne county Nebraska. Applications for leases in northern Logan and northern Yuma counties were filed by W. J. Radigan, T. J. Smith, Paul S. Pustmueller, Bay Petroleum Corp., George Nicholson, G. D. Robinson, Plains Exploration Co., and J. A. Howell, all of Denver.

A wildcat venture has been announced for the North Trull anticline in Routt county, Colo. W. E. Atkinson of Fergus Falls, Minn., who has interests in Weston county, Wyo., is completing a farmout deal with Stanolind for 2400 acres in townships 7 and 8n, range 85w. A granite test, around 2500 feet, is planned.

JENSEN was ready a couple of Million Barrels ago

We only wish we had a small percentage of all the oil pumped by Jensen units since the company was founded nearly 30 years ago. No doubt a small cut of this many millions of barrels would enable us to retire—even after paying taxes.

As it is we'll keep working, constantly improving our units so producers the world over can lift oil for less. We were ready yesterday and we'll be ready tomorrow with the correct answers to pumping problems.

If you are experiencing pumping unit difficulties, write to Coffeyville or see your local dealer. Of course, there'll be no obligation.

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Personalities IN THE NEWS

Oil Conservation Committee Elected

The Conservation Committee of California Oil Producers held its annual election of officers at its organization meeting on June 22, 1949. Mr. Lot Bowen, of Western Gulf Oil Company, was elected chairman for the ensuing twelve months.

Lot Bowen

According to Mr. Bowen, the Committee strives to increase the ultimate yield of petroleum from California's oilfields by encouraging efficient production practices. All of the Committee's work is carried out on an entirely voluntary basis. He stated that the district committee members are elected by vote of the oil producers in the State to represent the various fields and districts. There are 945 operators with a total of 26,497 oil wells in California. During May 1949 crude oil production was 929,000 B/D.

The other officers elected were: First Vice Chairman, T. W. Bell of The Texas Company; Second Vice Chairman, Ross McCollum of National Oil Company; and Secretary, Henry F. Power of General Petroleum Corporation.

The election of new officers follows the general election of District Committees by oil operators throughout the State, which was held in May. The Committee is made up of the chairmen and vice chairmen of the 30 oil producing districts into which the State is divided. In addition, two representatives-at-large were added to the elected membership.

The Nominating Committee was appointed with Joseph Jensen as chairman, to report its selection for membership and the chairman of the Administrative Committee and the Engineering Board, to be elected at the July 27th meeting of the Conservation Committee.

James T. Wood, Jr., Manager, Producing Department, Pacific Coast Territory, The Texas Company, announced the following organization changes effective July 1:

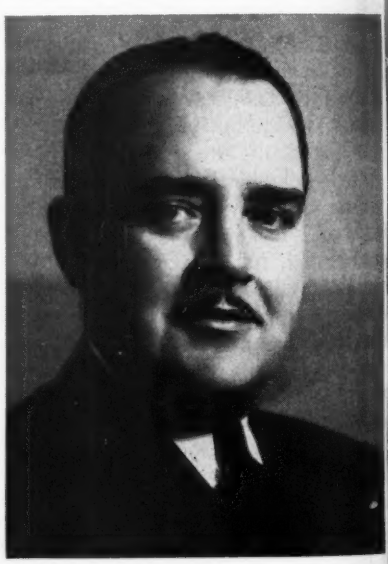
W. H. Loomis, as Superintendent, Ventura District, at Santa Paula. R. L. Jackson, as Superintendent, Los Angeles Basin District, at Signal Hill. This is an exchange of positions.

T. R. Beauchamp, as Assistant Superintendent of Los Angeles Basin for Production, Gasoline and Drilling Operations, supervising gas and gasoline operations in Los Angeles Basin. The former position of Field Superintendent of Gas and Gasoline Operations in Los Angeles Basin District held by Mr. Beauchamp has been discontinued.

Stuart E. Buckley, who is in charge of production research for Humble Oil & Refining, spoke on the "Principles of Reservoir Performance" at the geological forum of the American Association of Petroleum Geologists in General Petroleum Auditorium, Los Angeles. Herbert Hoover, Jr., United Geophysical Company, talked on "Petroleum Exploration in the Arctic."

Oil Accountants Elect Officers

The Petroleum Accountants Society of Los Angeles has announced the election of Elmer C. Rogers, Union Oil Company of California, as President for the year which began June 1, 1949. Mr. Rogers has many years of experience in the field of oil accounting and at present heads the marketing accounting division of the company he represents.



Elmer C. Rogers

Other officers elected are: first vice-president, Harold D. Osborn, General Petroleum Corporation; second vice-president, Fred S. R. Sedding, Doheny-Battson Interests; secretary-treasurer, J. R. Brown, Standard Oil Company of California. A new director, E. M. Jacobs, The Texas Company, was elected to fill a vacancy.

The installation of officers took place at a meeting of the Society on June 23.

Membership in the Society consists of executive accounting officers of petroleum companies.

Seaside Promotes C. W. Chamberlain

C. W. Chamberlain, resident of Santa Barbara for the past eleven years, has been appointed manager of operations of Seaside Oil Company, according to an announcement by Harry A. Jackson, president.

C. W. Chamberlain

In his new position, Mr. Chamberlain, in addition to supervising purchasing, traffic and transportation for the company, will be responsible for directing and co-ordinating maintenance and repair of company facilities, such as bulk plants and service stations, and products inventory control.

Mr. Chamberlain, who is married, joined Seaside in September, 1931, and has been in charge of purchasing for the past several years. He is a member of several fraternal organizations, being past president of the Santa Barbara Elks Club, and is affiliated with La Cumbre Lodge F & A M No. 642, the Santa Barbara Consistory and the Shrine.

Roger W. Leason has been elected president of the Los Angeles Control, the Controllers Institute of America. Leason is vice president and treasurer of Emsco Derrick & Equipment Company.

Elwood Munger, Munger Oilgram, announces the removal of company offices on south Berendo avenue to the new Munger Oilgram building at 5865 West boulevard, Los Angeles.

John M. Peirce, executive secretary, Western Oil and Gas Association, was a principal speaker at the annual meeting of the North American Gasoline Tax Conference in Portland, Oregon. His topic was "Financial Aspects of Gasoline Taxation." W. Needham Lambert, Standard of California tax attorney, also was a chief speaker at the meeting. He discussed "State Taxation of Motor Vehicle Fuel Sold to the United States Government."

Alma Benjamin, secretary of Severns Drilling Company, contract drilling and producing organization, has returned from her annual vacation. She spent three weeks at points in the Southland.

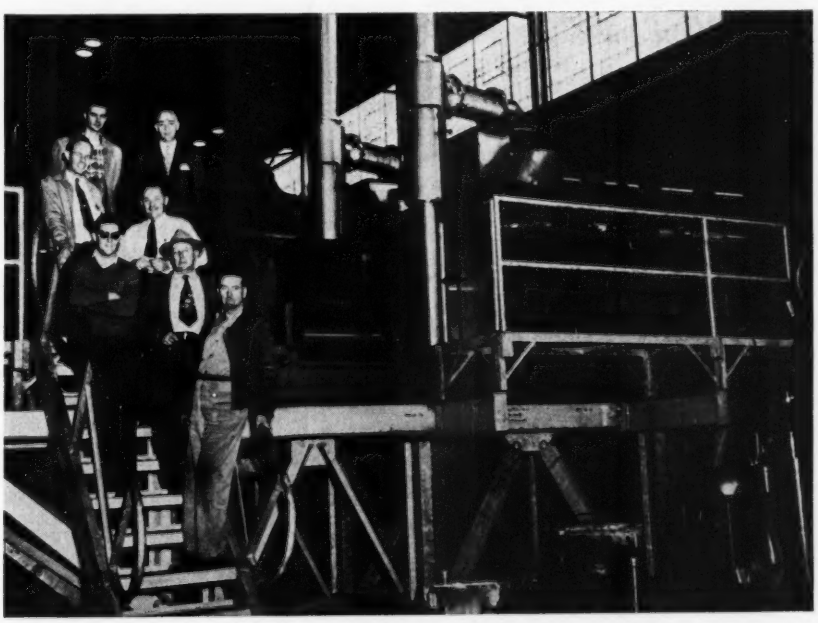
Lloyd DeHart, pipeline superintendent for Hancock Oil Company, passed away at Twenty-Nine Palms. Mr. DeHart had been prominently identified with Hancock at Signal Hill for more than 20 years.

Arthur Lee Lewis, 87, retired oil man and rancher, died in Whittier. His parents crossed the plains in a wagon train to Anaheim when he was eight years old. He lived there until 1914, when he moved to Santa Fe Springs. He had resided in Whittier for the last eight years.

Succeeding Edwin S. Hall, who retired last March, Oscar John Dorwin, Texaco general counsel, has been elected chairman of the industries committee of the American Petroleum Institute.

William Bohen, 65, president of Blackfoot Petroleum, who passed away recently, was a resident of Los Angeles since the 1880's and in 1892 he was among those present when E. L. Doheny completed the first well at First street and Glendale boulevard. Officers of the Blackfoot firm also include Rush M. Blodget, long a California oil leader.

Edward M. Loftus, veteran oil landman, is dividing his annual vacation this summer into weekends at Catalina Island. His chief diversion there is fishing expeditions. Loftus also was an early driller at Santa Fe Springs field, which is adjacent to his Sunshine Farms' property.



E. F. Prehoda, superintendent for the Santa Fe Drilling Company at El Mene, visited the Torrance, Cal., shops of The National Supply Company recently. With several other Santa Fe field men, Mr. Prehoda inspected a new power rig during its test assembly on the plant floor. In the above party, shown clockwise, are: Charles Whitaker, engineer, Santa Fe Drilling Company; Robert Battersley, chief engineer; Robert Fike, engineer; Owen Lake, Export Sales, National Supply; R. F. Cato, Field Shop supervisor; Mr. Prehoda; and A. B. Cook, night foreman of the Field Shop.

Sembower Heads West Coast Public Relations for Shell

J. H. Sembower has been appointed to the newly created post of assistant to the executive vice president of Shell Oil Company and will have direct responsibilities for Shell public relations activities on the Pacific Coast, P. E. Lakin, executive vice president, announced recently. Mr. Sembower assumes his new position after a year's special assignment as director of the International Road Federation.

J. H. Sembower

A Pennsylvanian by birth and a graduate of the University of North Carolina Law School, Mr. Sembower joined Shell as a salesman in 1938. He subsequently served in the personnel department, first as a field representative and later as assistant manager. In 1941, he was appointed manager of the public relations department in New York, the position he held until leaving for service with the Navy in 1942. On his return in 1946, he became head of personnel, industrial relations, and training for Shell's Texas-Gulf Coast area, with headquarters in Houston. He held the post until April, 1948, when he was made director of the International Road Federation.

John B. (Jack) Elliott, oilman and political figure, is convalescing after undergoing surgery at the Hospital of the Good Samaritan in Los Angeles.

Appointment of three Los Angeles directors of Freedoms Foundation, Inc., a new organization designed to make annual awards to persons making the greatest contributions to a better understanding of the American way of life, has been announced. The directors are Reese H. Taylor, president of Union Oil, Don Belding, chairman of the executive committee of Foote, Cone & Belding, president of Freedoms Foundation, and Dr. Fred D. Fagg, Jr., president of the University of Southern California.

W. G. Krieger, president of Douglas Oil Company, announces the election of J. G. Stevens as executive vice president. Sam Goldman, William F. Lyte, John J. Stanko and L. A. Whitlock, have been named vice president of the company. D. L. Commons was elevated to secretary and G. E. Clarke to assistant secretary. Earl S. Sharp was appointed assistant to the president.

Laurance H. Cooper, formerly vice president in charge of Pacific Airmotive Corporation's eastern division, recently was appointed vice president and general manager of the firm. His headquarters will be in Burbank.

Instrument Assn. of Northern Calif. Elect Officers

The Northern California Instrument Association at its annual meeting held at the Claremont Hotel, Berkeley, California, June 20, elected officers for the year 1949-1950.

C. S. Beard, Bechtel Corporation, was named President, Mr. Keith Draeger of Standard Oil Company of California, Vice President and Mr. M. A. Dimmick, Mare Island Navy Yard, Secretary and Treasurer.

The feature speaker of the evening was Dr. W. J. Warren, Professor of Electricity and Electronics at Santa Clara University, who spoke on "The Field of Electronics in Instrumentation."

Approximately 75 leaders in the Instrument Field in Northern California were present.

Watts Advances at G. P.

E. V. Watts has been appointed Production Superintendent of the Southern Division of General Petroleum Corporation's Production Department, it was announced by R. O. Swayze, Manager, California Operations.

E. V. Watts

Watts has been assistant to C. C. Gandaubert, Southern Division Superintendent, and, in his new post will continue to report to him. The appointment was effective July 1st.

Watts is a native of Chattanooga, Tennessee. He took a B. S. degree in engineering at the California Institute of Technology in 1936 and joined the General Petroleum Corporation the same year.

His first position was a roustabout in the Lost Hills field. Within a year he had advanced to Engineer at the company's Vernon headquarters.

He has been assistant to the Division Superintendent since May 1948.

Watts is active in industry activities, having served as Chairman of the Pacific Coast District of the American Petroleum Institute, Division of Production, in 1947-48. He is a member of the Conservation Committee of California Oil Producers, the American Institute of Mechanical Engineers and Tau Beta Pi.

Watts lives at 529 Garfield Avenue, South Pasadena, California.

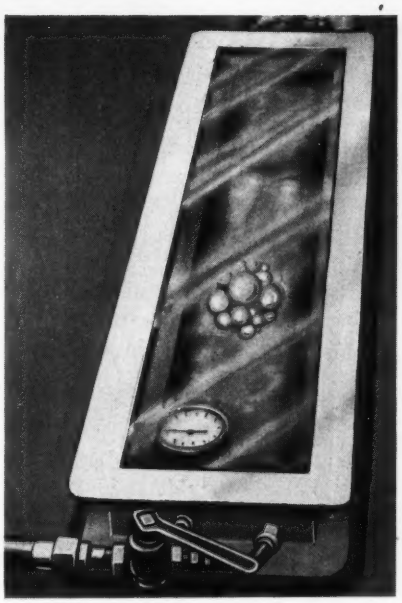
American Pipe Introduces New Device

A time-tested but little known device for quickly locating leaks in pipes, tanks or other storage vessels is the patented American Vacuum Seam Tester. The manufacturer, American Pipe & Steel Corporation of Alhambra, California, reports that this compact, portable unit effects substantial savings by often eliminating the necessity of taking out of service the old equipment to be tested. In the construction of new tanks and storage vessels, the Vacuum Seam Tester swiftly detects even the smallest unsuspected pin-point leaks, eliminating costly, cumbersome old-fashioned methods.

Tester operates on a simple, efficient vacuum principle. Seams are covered with soap suds. Inspection box, with clear glass top and soft rubber base is laid over seam. A powerful vacuum created within the inspection box draws air through any leaks causing soap bubbles to form. These are clearly visible through the glass top. Testers are available in a wide variety of sizes and shapes for inside corners, outside corners, circumferential seams and straight seams.

Tank farm owners and oil producers improve efficiency of their vapor recovery equipment by testing tank decks regularly. By testing tank bottoms at regular intervals, they prevent the unnoticed leakage of gasoline or oil that hitherto had amounted to a considerable sum over a period of time.

Gasoline bulk plants and refineries equip their maintenance crews with Vacuum Seam Testers to locate the pinhole leaks often caused by refinery chemicals, quickly rust-enlarged by moisture seepage. Testers thus prevent loss of valuable liquids and vapors, reduce possibility of expensive danger to employees, and add many extra years to tank life.



The American Vacuum Seam Tester is completely guaranteed and immediate delivery is assured by the American Pipe & Steel Corporation, 2201 West Commonwealth Ave., Alhambra, Calif.

Price Reduction on "Perfo-Jet" Service

A recent reduction in the price of "PERFO-JET" process has been announced by the Service Division of Byron Jackson Co. New price lists are available giving complete details of the new schedule, copies of which may be obtained from any representative of the BJ Service Division.

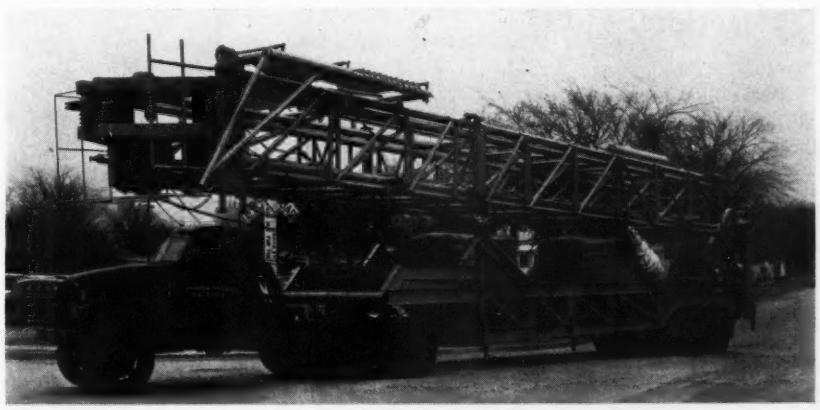
Diesel Engine Cylinder Wear

Cylinder Wear in Diesel Engines, by Carl Hoegh (1st Ed., Chemical Pub Co., Brooklyn, N. Y., 245 pages, $5.00) is a new reference work for those working with Diesel engines and Diesel lubrication.

Although much investigative work has been done on the prevention of cylinder wear, the accomplishments in the field are widely scattered in the literature.

The author has correlated the available data on the subject. Factors affecting piston and cylinder wear are discussed in detail, and recommendations for the increase of efficiency are made.

Oil burner dealers over the country anticipate they will sell 20 per cent more burners this year than in 1948. They expect Americans to install some 540,000 power-driven oil burner units during the current year and to purchase 1,000,000 space heaters.



Pictured above is the "Cardwell" Trailerig powered by two WAK Waukesha engines with double drum draw works and 90-foot mast rated to 5,000 feet with 4½-inch drill pipe. Sixteen 7.50x20 tires. Height 13 ft. 6 inches, width 8 feet, length 59 feet 3 inches, weight less truck 75,000 pounds. This rig is set up for demonstration at the Crail Transportation Company yard, Wardlow and Cherry, Long Beach, Calif.

THIS LAUGH OFF!

A man celebrates his birthday by taking a day off. A woman observes hers by taking a year off.

At the age group of 75 there are 118 percent more women than men living—but at 75 what difference does it make!

Man: Pardon me, Miss, but has your dress slipped off or am I seeing things?
Girl: Both.

"Pretty dress you have on."
"Yes. I only wear it to teas."
"Tease who?"

Harold: "Did Frances blush when her shoulder strap broke?"
Gerald: "I didn't notice."

Fashion Note: "They're wearing the same things in brassieres this year."

Flattery is the art of pretending you like the girl more than the kiss.

She: I've lost so much weight you can count my ribs.
He: Gee, thanks.

"Zeke, why do you call your mule 'Public Service Corporation'?"
"'Cause dat mule kin stan' mo' abuse and still go right on habbin' his own way!"

Parson: "Hell is full of cocktails, highballs, short skirts and two-piece bathing suits."
Voice from gallery: "Oh, death, where is thy sting?"

Johnny: I know something you can't eat for dinner.
Mary: What?
Johnny: Breakfast.

Son: Dad, what is experience?
Dad: What you have left after you've lost everything else.

Inscription on a tombstone: "Here lies an atheist—all dressed up and no place to go."

"I'm really an old-fashioned girl."
"Really?"
"Yes, that's all I ever drink."

"The older generation thought nothing of getting up at six in the morning."
"The younger generation doesn't think much of it, either."

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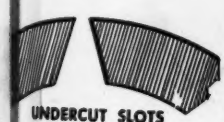
DID YOU KNOW?

- Pacific Perforating Co. has 5 completely equipped plants to serve you: Torrance, Ventura, Bakersfield, Taft and Coalinga.

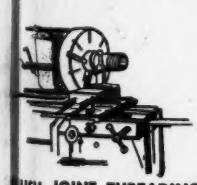
EXPERIENCED PERSONNEL • PROMPT SERVICE • PRECISION WORK



- Pacific Perforating Co. developed the machine-cut Keystone (undercut) Slot. Uniform, smooth-finished slots provide maximum efficiency.
- Pacific Perforating Co. is the only perforator who can cut below 25 mesh. Extra fine-gauge our specialty.
- Pacific Perforating Co. developed the machine-cut round corner slot to prevent stress relief at the perforation. Maximum strength for longer life.
- Pacific Perforating Co. will analyze the sand conditions in your well and recommend the type slot and slot pattern to obtain maximum production.

- Pacific Perforating Co. thoroughly inspects each and every slot...all burrs and cuttings are removed. Pipe joints are steam cleaned; threads are carefully protected before shipment.

- Pacific Perforating Co. has helped develop physical tests on new flush joint threads. Results of these tests are available to members of the oil industry on request.



- Pacific Perforating Co. has the facilities for giving the best service 24 hours a day, 365 days a year.

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Pre-Packed Gravel Liner
Ventura Tool "Flush Joint" Thread
API "Round" and "V" Threads

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"More than a quarter century of drilling experience has proved to me that on any location in any formation there's a Hughes Rock Bit designed to do the job best. It's another example of a Hughes 'Engineered Solution' for every drilling problem."

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Standard of the Industry